



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

www.vnps.org

Legislative issues affect native plants

As this year's legislative term begins in Richmond, there are several areas where legislation affecting native plant conservation will be introduced. From the Virginia Conservation Network (VCN) website, www.vcnva.org, there are papers available that detail the concerns and recommendations to watch for, even though at this time there are few specific bills to watch. The primary areas of concern include funding for natural resources, air pollution, development/sprawl and water pollution.

NATURAL RESOURCES FUNDING

The perennial problem of funding for Virginia will hopefully be addressed (see related article). Virginia remains at the bottom of the list of states in funding. The current spending amounts to less than one dollar for ev-

(See Legislative issues, page 4)

Richmond Watch

Conservation, constitution linked

First, a quote from the Virginia Constitution:

ARTICLE XI, Conservation: Section 1. Natural resources and historical sites of the Commonwealth: "To the end that the people have clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters, and other natural resources, it shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public lands, and its historical sites and buildings. Further, it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth."

In a recently posted article on the Virginia Conservation Network's website, Michael Lipford, Virginia Executive Director of The Nature Conservancy, cited this section of the constitution to show that protection of natural resources is a core function of the government. Yet, our natural resources have not been a priority in the state budget, and our per capita spending is the lowest of any state in the nation. This year less than one percent of the state budget will go to natural resources.

Since 2000, the Natural Resources Secretariat is the only functional area of state government to tolerate an actual dollar decline in funding, with cuts of over \$22 million. The Natural Heritage program, responsible for protecting the

(See Conservation resources, page 4)

VNPS workshop continues biodiversity theme

Remember this date -- March 6, 2004 -- for the VNPS annual workshop. While continuing the theme of biodiversity begun in 2003, this year's workshop will concentrate on biodiversity within Virginia and preservation efforts in our state. Because of construction at our longtime University of Richmond location, this year's workshop moves to Lewis Ginter Botanical Garden. See the enclosed brochure for program details.

Our featured speaker will be

Gary Fleming, a Vegetation Ecologist for the Department of Conservation and Recreation's Division of Natural Heritage since 1992. He has more than 25 years of experience in botanical and ecological inventory of the mid-Atlantic region. An inventory of natural communities of Virginia created by Fleming and others can be found on the Department of Conservation and Recreation's website at www.dcr.state.va.us/dnh/nhrinfo.htm.

(See Workshop, page 8)



From the president

Winter is the time to think about plant conservation

Now the ground is white for the second time this December -- five or six inches of snow with a thick crust of ice on top so it shines at night in the Christmas lights. I don't mind the snow, but the wind can keep me inside. I once thought it was the time of year to hunker down with seed catalogs, but now I prefer bud books. It takes some time and patience, and a tall friend who can reach them sometimes, but looking at winter twigs can become a fine pastime.

Another thing to do is to read up on doings that will affect your native plants. It's a good time to look at the Virginia Conservation Network (VCN) website. If you do not use a computer at home, try the one at the local library, or call and ask for VCN's white papers on an issue that interests you. VNPS maintains a membership in this organization. VCN keeps up with our state government, what legislation is in the works and how it will impact or improve natural areas and landscapes. Ask yourself how it will affect native plants. There is a review of some of the upcoming topics in this Bulletin. I hope you will have a quiet winter day to read up on these issues. It is not always exactly fun, like looking at buds, but I think we all realize that we have to take some responsibility for how things turn out.

I hope everyone will read the announcements in this Bulletin and try to come to Richmond for our March workshop. Education chair Shirley Gay has worked hard to put together a great follow-up to last year's Biodiversity theme. This year we will focus more on Virginia's plant diversity, and we have people who are working toward preserving our plants and landscapes from many angles. Come with questions for them, and on the way, watch those buds changing color on the red maples.

Your President, Sally Anderson

VNPS 2004 WOY: Seashore Mallow takes us to Virginia's coast

From mid-summer to early fall, one of the most distinctive blooms of the salt and brackish marshes of tidewater Virginia and, indeed, the whole outer coastal plain from Delaware to Texas is the seashore mallow, *Kosteletzkya virginica*. Its yard-high stems with clusters of showy pink flowers stand out even when glimpsed from a car speeding to the beach. This was a natural choice for the South Hampton Roads Chapter when it selected a characteristic floral emblem for its area, and the VNPS is pleased to highlight the species statewide this year.

This is the 16th native species to be featured as the Virginia Native Plant Society's "Wildflower of the Year" since the program began in 1989 with Virginia bluebells. The other selections have been spring-beauty (1990), cardinal flower (1991), butterfly-weed (1992), wild bergamot (1993), mountain-laurel (1994), New York ironweed (1995), large-flowered trillium (1996), fringe-tree (1997), columbine (1998), twinleaf (1999), flame azalea (2000), trailing-arbutus (2001), witch-hazel (2002), and yellow



trout-lily (2003) – 11 herbaceous and 5 woody species. All of them are featured on the VNPS Website (www.vnps.org) along with the criteria for selecting the Wildflower of the Year.

It has been my duty and privilege, as Botany Chair on the VNPS Board from fall 1996 to fall 2003, to oversee the selection process and then prepare the text for 7 (4 herbaceous and 3 woody species) of the 16 choices, beginning with 1998 (1997 was already in process). It is my pleasure now to pass along this task, starting with the selection of the WOY and preparation of the text for 2005, to the good hands of my successor, Professor John Hayden of the University of Richmond. I wish him the very best, and I know that he will find the work rewarding.

Kosteletzkya, worldwide, is a genus of about 30 species of mallows, but the southeastern *K. virginica* is the only one native to North America north of Mexico. The genus belongs to the large cotton family, Malvaceae, which in addition to cotton includes the famous gumbo vegetable, okra, and many important ornamentals, especially in the largest genus, *Hibiscus*. The family also includes the European marsh mallow, *Althaea officinalis*, whose mucilaginous roots provided the original sticky paste for "marshmallows." (Marsh mallow, marsh-mallow, or marsh-mallow? Dealer's choice!)

Seashore mallow is an herbaceous perennial with 3-6-inch, gray-green, toothed leaves that are elongate-triangular with spreading basal lobes, giving the leaf a shape called "hastate." The whole plant is roughened by fine hairs. The 5-petalled, 2-3-inch flowers, though usually pink, may be white. The numerous stamens form a column around the pistil and its 5 styles, capped by pinhead stigmas. The 5-

(See WOY, page 3)

Exciting progress continues on Flora of Virginia Project

Virginia's first Flora of Virginia since 1743, will be an extensive volume co-authored by Christopher J. Ludwig and Allen Weakley, describing every one of the 3,700 plants in Virginia. The descriptions will be accompanied by a fresh illustration of each plant by Lara Gastinger.

It is exciting because this volume will link students of all ages to our flora of natural areas. Professional botanists will rely on it for their work. Outdoor enthusiasts will use it while trekking through the state's natural areas.

Additionally, the Flora of Virginia Project (FOVP) will be invaluable to natural resources managers of all state and federal agencies who work with Virginia's ecosystems. (VDGIF, VDACS, VDOT, VDOF, the Corps of Engineers, USFWS). The information of the Flora will assist planning land development. The Flora will contain both native and non-native descriptions enabling one to determine information about a site and also raise the awareness of our native flora characteristics, habitat requirements, and communities.

As we enter the third year of work on the Flora, the Phase 1 Description work is progressing. John Dodge of the Flora's Advisory Council is submitting his work on a regular basis to Ludwig, as other members of the Advisory Board are accelerating their work. Co-authors Weakley and Ludwig are writing and working on the text.

Gastinger, botanical illustrator for the Flora of Virginia, has completed 230 beautiful new line illustrations of dicots. Recently, Doreen Bolnick has agreed to offer her professional botanical artistic skills as a volunteer to illustrate the monocot species of *Liliaceae* and *Orchidaceae*. Volunteer artist Roy Fuller is working on the ferns and fern allies. The Flora of Virginia will contain all new and original illustrations exhibiting taxonomic features of the plants to assist their identification.

Marion Lobstein has been granted a sabbatical by NVCC Manassas Campus and plans to devote this period of time to the FOVP species descriptions. This generous work will be invaluable to the progress of the Flora.

Funding development for the project continues as Joslin Gallatin builds the program. VNPS members have continued to be generous and consistent in their financial support of the project.

With a projected publishing date by 2012, this is a long-term project that will continue to need strong support from VNPS members.

If you would like to know more about the project and the people involved, visit the website at: <http://www.dcr.state.va.us/dnh/vaflora.htm>.

How can you help to produce The Flora of Virginia through your financial support to this project? Please make your check payable to "The Foundation of the



Flora of Virginia Project, Inc." and send it to:

The Foundation of the Flora of Virginia Project, Inc.
P.O. Box 512
Richmond VA 23218-0512

All donations are fully tax-deductible and will be acknowledged by letter, a copy of which should be kept for tax records. Please indicate if you would like your gift to remain anonymous. To give a donation in the form of securities, please call Ludwig at 804-371-6206. We will be producing the first new Flora for Virginia since 1743. Participating is truly exciting.

Nicky Staunton
Member of the FOVP Board of Directors

•WOY

(Continued from page 2)

celled pistil becomes a squatty 5-parted and 5-angled dry capsule less than an inch in diameter with 1 seed per part.

Seashore mallow grows in salt to almost fresh marshes and on shores and edges of swamps, bogs, and mangroves. In southeastern Virginia it is found in the coastal and tidewater counties, up the Potomac River as far as Prince William County. The main threat to this common native is habitat destruction. It is relatively easy to grow from seeds or transplants under a variety of moisture conditions, including in good garden soil. Growing from seeds is recommended. Transplants should not be taken from the wild but should be purchased from nurseries that propagate their own stock.

Stanwyn G. Shetler

•Legislative issues

(Continued from page 1)

ery \$100 collected by the state. The goal is to move from less than one percent to two percent. Several funds that have been established to address natural resource needs are inadequately funded or not funded at all. Only five percent of the amount of funding necessary to achieve Chesapeake Bay water quality commitments are in place. Other areas where protection of native landscapes would be justified are also hampered for lack of funds. VCN examples include the Chowan Basin, with one third of the state's non-tidal wetlands and the northernmost longleaf pine savanna, and the Clinch Valley, where 31 threatened and endangered species are found.

AIR POLLUTION

Air pollution is taking a toll on our environment in several ways. First, it directly affects the number of cases of respiratory illness and is linked to asthma, lost workdays and even death. The pollution comes primarily from coal-fired power plants and vehicle emissions. Power plants primarily produce sulfur dioxide, nitrogen oxide and mercury as pollutants. Besides affecting human health, these pollutants acidify our streams and soils, weaken our forests, reduce visibility from our mountains, and impact tourism. More than one third of the nitrogen entering the Chesapeake Bay comes from air pollution.

Although these pollutants can be reduced more than 70 percent with currently available technology, there is

little direction for air pollution reduction on the national level. One problem with the credit trading system that is being widely touted is that levels may remain high in some areas even if overall levels were to drop. In Virginia, citizens should ask the General Assembly to act immediately to draft and adopt a new plan for the state. Now the U.S. Environmental Protection Agency is granting an extension to the Virginia Department of Environmental Quality to develop a new plan to meet attainment of current pollution standards, since the District Court's recent decision to vacate the old plans. VCN feels this delay is unnecessary, and air pollution will continue to take a toll in the absence of a plan.

Other possible legislation that will come out of this issue is the **Virginia Clean Smokestacks Legislation**, similar to that passed in North Carolina. In that state, mandatory emissions reductions at 14 major power plants also direct the state to study reductions of the greenhouse gas known as carbon dioxide. Utilities were given accelerated depreciation of equipment associated with the cleanup and electric rates are temporarily frozen. Pollution credits will be gained and will be considered property of the public. In Virginia, eight power plants are currently given a grandfathered status allowing them to avoid implementing controls. Reducing power plant pollutants could make real improvements in forest health.

Vehicle emissions are the other

major source of air pollution, and they too are creating problems for the native plant communities of the Commonwealth. This topic is closely related to planning and development issues. Some of the areas to watch are the reform of the Virginia Department of Transportation (VDOT) and Adequate Public Facilities legislation. VDOT has been accused of focusing too heavily on new road construction, while roads and bridges are poorly maintained and transportation and land use decisions are uncoordinated. As we in the VNPS know, new road construction often leads to destruction of sensitive environments, causes further habitat fragmentation, and can be responsible for the spread of invasive plants when they are used to revegetate the construction areas.

Watch for legislation to promote alternatives to driving a car and strengthening of a rail authority created last session (SB1279), which will expire if not reenacted. Legislation to reduce environmental impacts of transportation and increase public involvement in planning, and to reform VDOT and the Commonwealth Transportation Board is also supported by VCN. It would be nice to see the environmental impacts on native plant communities be part of these discussions.

DEVELOPMENT ISSUES

Since habitat loss and fragmentation are considered major challenges in environmental protection, development issues become an area of concern.

(See Issues, page 5)

•Conservation resources

(Continued from page 1)

biodiversity of Virginia, has lost 25 percent of its staff and 65 percent of its operating budget during this time. Meanwhile, its responsibilities have increased to include administration of the bond funds to acquire natural area preserves (which need to be managed too) and overseeing the Virginia Invasive Species Council.

Public support for natural resources in Virginia appears to be very high. Besides voting in favor of the bonds to fund parks and natural areas last year, polls show high levels of support for open space, clean air and water, and for an increased percentage of tax dollars spent for natural resources. At this time, Virginia cannot meet obligations made in the Chesapeake 2000 agreement, a pledge to conserve land in

the bay's watershed and reduce pollutants flowing into the bay. The Virginia Land Conservation Foundation, one vehicle to accomplish these changes, has not received funding for two years. Pollution reduction should have moved forward with the Water Quality Improvement Fund through upgrades needed at wastewater treatment plants, but this fund received no revenue last year.

The private sector, in particular the Virginia Outdoors Foundation and The Nature Conservancy, are to be thanked for much of the land that was set aside in the 1990s, mostly through private donations and conservation easements. The Nature Conservancy is currently working to build a broad coalition of resource users and businesses in the state, with the goal of increasing the percentage of state funding that will be used to protect our precious heritage.

•Issues

(Continued from page 4)

The Adequate Public Facilities Ordinance Enabling Authority is legislation to allow localities to insist that approval of a development plan be contingent on the availability of facilities such as schools, roads and public utilities. The Impact Fee Enabling Authority would allow localities to impose developer fees for these types of services, rather than depending on the limited proffer system. The proffer system applies only in rezoning, whereas these fees would be set out and applied across the board.

Other legislation may be able to direct state investment to towns instead of rural areas in a move to reduce sprawl. This includes funding programs such as the Governor's Opportunity fund, the Enterprise Zone Program, the Main Street Program and brownfields development. Also under consideration is a law that allows tax rates to be lower on buildings than on land to stimulate investment in towns. Fairfax City has recently been granted this authority.

WATER POLLUTION

Low Impact Development (LID) is a growing area for control of stormwater runoff that leads to stream erosion and water pollution. Rather than retain stormwater in a retention pond, which can lead to problems with filling, backwater and flooding, these practices imitate natural water movement. Attempts are made to minimize impervious cover (roofs, driveways, roads), conserve natural vegetation cover and replicate the pre-development runoff volume and timing. These practices are not all suitable for every location, and require greater construction oversight and more detailed site plans. Where they work, they reduce impacts to streams and wetlands and reduce mitigation costs to developers.

Even more important than the high volume of nitrogen from air pollution that ends up in surface water and eventually in the Chesapeake, the major nitrogen source is inadequate sewage treatment. New technology can prevent 42 million pounds of nitrogen from entering the bay each year, one third of needed reductions. Citizen support for these controls will be important in upgrading sewage treatment plants in Virginia.

Seeds of Success Workshop

Coming to Virginia in 2004: Seeds of Success – Weekend Workshop Pilot Program in Virginia

Millennium Seed Bank Project International Programme is a nine-year global conservation programme conceived, developed and managed by the Seed Conservation Department at the Royal Botanic Gardens, Kew, England.

The organization's two principal aims are:

- Collect and conserve 10 percent of the world's seed-bearing flora (some 24,000 species), principally from the drylands, by the year 2010. The MSBP has already collected seeds from virtually all of Britain's flowering plants.
- Develop bilateral research, training and capacity-building relationships worldwide in order to support and to advance the seed conservation effort.

This *ex situ* seed conservation complements the approach to *in situ* conservation.

Millennium Seed Bank reaches out to VNPS

Seeds of Success is the part of the Millennium Seed Bank Project (MSBP) occurring in the United States. Michael Way is the Coordinator for the Americas. Work has been established in the western United States through a partnership with U.S. Department of Interior – Bureau of Land Management (BLM). The Chicago Botanic Garden, a new partner, is going to concentrate on the collection of common species of tall grass prairie plants, such as compass plant, prairie drop seed and Indian grass. These seeds are not being seed-banked anywhere.

No program is currently established to collect east coast seeds. It is our hope that our members will make it possible for the future of Virginia's native plants to be preserved through Kew's Millennium Seed Project.

The January issue of the VNPS *Bulletin* contains a report on the visit to Virginia by Michael Way, International Coordinator for the Americas and Clare Tenner, International Programme Officer. Several weeks ago VNPS board members had a conference call with them. They were back in England and planning for a Seeds of Success pilot program here in Virginia.

Communications are underway with the New England Wild Flower Society and The North Carolina Botanical Garden in Chapel Hill about full partnership with the Millennium Seed Project.

As a small, all-volunteer non-profit, VNPS is not organized to be a full part-



ner, but we can still participate at the grassroots level. Your response will determine whether it will happen. This will be a project in Virginia for specific plant species that will be determined with the guidance of Johnny Townsend, Botanist at DCR Division of Natural Heritage. There will be specific amounts of seeds to collect and instructions on handling the seeds. Once goals are met, the project is fulfilled. The education and experience you receive will help you with other seed collection project opportunities and you will have been part of the program to secure Virginia's native plant seed *ex situ* at Kew.

Michael Way will come to Virginia the summer of 2004 (exact date to be announced) for a three-day training program for 12 Virginians who would like to volunteer for this important conservation effort on behalf of our native plants. The location for the event will

(See *Seeds*, page 8)

Dead wood brings new life to the forest

It may be hard to believe, but trees can actually create more habitats for various species after they die than when they are alive. Recent studies have found that dead trees are crucial to the overall health of a forest ecosystem. And amazingly, as reported in the journal *Science*, their influence extends beyond the edge of the forest to rivers, estuaries, and even the ocean.

For decades, scientists have recognized the importance of standing dead trees, or snags, as habitat for a variety of birds, small mammals, and insects. Fungi and bacteria first colonize these dead trees, followed by insects and other organisms like the pileated woodpecker. The woodpecker digs deep into the trees in search of carpenter ants to eat. In the process, it creates holes that serve as habitat for other creatures, such as chickadees, bluebirds, and bats, who cannot dig holes themselves.

Researchers in the United States have found up to 100 snags per hectare in old-growth forests. These trees can stand for more than 40 years, and once they fall, they decompose on the forest floor, creating new habitats for up to 300 years more. Studies of coastal temperate rainforests have found at least 80 species that depend directly on dead wood for their survival.

In an old-growth forest, rotting trees sprouting new saplings are a common sight. It is often assumed that these rotting logs, dubbed nurse logs, provide nutrients that help the seedlings grow. But studies at the University of British Columbia have found that nutrients released by rotting trees are largely unusable to seedlings. Most nutrients in the soil actually come from fallen needles and leaves. The real benefit of nurse logs is their ability to protect seedlings from pathogenic fungi in the soil, which can kill seedlings but cannot survive in the deadwood.

The more we discover about our forests, the more we find that our previously held assumptions were often wrong. Look at dead trees in rivers,

for instance. It was commonly believed through much of the 20th century that these trees clogged streams and destroyed fish habitat. Now we are finding the opposite to be true. Large fallen trees can remain stuck in streams for more than a thousand years, collecting sediment, preventing erosion and gathering debris that provides nutrients for organisms. These trees also form dams and waterfalls that eventually create deep pools -- perfect habitat for fish.

And if dead wood reaches the ocean, it helps spawn even more life. Marine invertebrates feast on the wood, attracting other creatures from little fish to birds to sharks. Eventually these floating piles of wood can become miniature ecosystems, some of which have been known to float for years, attracting so much sea life that fishing boat captains seek them out in their search for fish.

Unfortunately, the deadwood capable of lasting for the longest length of time and thus creating habitat for the greatest diversity of species are big old-growth trees, which are becoming more and more rare. Most of North America's virgin forests have been logged, much of it within the last 50 years. It will take centuries for very large trees to return. That means there will be less dead wood to provide habitat for birds, salmon, and other creatures and even less of it seeding the oceans with new life.

Dead wood is crucial to the health of forest ecosystems and beyond. Yet in focusing on trees for their value as timber, logs, or pulp, with rotation cycles of 70 to 80 years, we fail to see the real life cycle of a tree that extends far beyond the time of death. If we are to develop a truly sustainable model of forestry, we must recognize the interdependence of our ecosystems and change our practices accordingly.

By David Suzuki

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Garlic mustard removal

The Piedmont Chapter needs volunteers for garlic mustard removal at the G. Richard Thompson Wildlife Management Area's Trillium Slopes, a VNPS Registry site off the I-66 Markham exit near Front Royal. The target dates are March 7 and 21 because rosettes are visible during the dormant season, therefore minimizing the danger of damaging other flora. Please inform Jocelyn Sladen if you think you could be part of the work team. She will keep you informed of specific plans. Contact her at 540-349-3248 or jocelyn616@earthlink.net (e-mail preferred). These projects can be fascinating and fun, and the area is a treasure of a place.

North Landing River Preserve offers many lessons

The Nature Conservancy's North Landing River Preserve encompasses 7,348 acres of wetlands and uplands along the west bank of the North Landing River in Virginia Beach and Chesapeake. The North Landing River Preserve provides a refuge for migratory waterfowl, rare plants, and animals, and protects four of Virginia's rarest natural communities: freshwater-brackish tidal marshes, canebrakes, pocosins, and Atlantic white cedar forest.

A one-fifth mile boardwalk through the woods to the marsh is available to visitors during daylight weekend hours. An observation deck, accessible by boat, allows for viewing the picturesque landscape. (No fishing, bikes, or pets are allowed.)

Thirty-two rare plants can be found at North Landing River Preserve, including the elongated lobelia and sheep-laurel. Twenty plants are at the northern limit of their ranges, such as sawgrass, the dominant grass of the Everglades.

The marshes of North Landing River are the most ecologically diverse in the state. For instance, the preserve contains the only example of a pocosin natural community in Virginia (peat bogs dominated by shrub thickets). The wind-tide marshes and long-lived bald

cypress trees of the North Landing River are home to at least six rare animals. One of the state's largest heron rookeries is found here.

Preserving the wetlands at North Landing River Preserve has economical benefits. Wetlands act to filter pollutants from water supplies and promote the Virginia Beach nature tourism industry. Preserving the North Landing River area also benefits the species that inhabit it and the people who care about preserving Virginia's biodiversity.

Among the threats to this unique natural area is phragmites, or common reed, an invasive grass choking out several common species and threatening the preserve's rare plants. A program led by the Department of Conservation and Recreation uses prescribed burns and biodegradable herbicides to control phragmites. Restoring the role of fire in natural systems through prescribed burns recycles nutrients through the soil, by controlling overly-invasive plants. Other threats posed by the growth of Virginia Beach are channeling of marshes and dredging.

To visit the preserve: coming from the north (Northern Virginia or Richmond area), take I-95 south to I-64 east. Follow I-64 past Hampton Roads to Virginia Beach. Take exit 286B, Indian River

Road (Rt. 407 East). Follow Indian River Road about eight miles to North Landing Road (note: watch for a tricky zig-zag at Elbow Road. Be sure to stay on Indian River). Turn right onto North Landing Road. Go 2.2 miles then turn left onto Fentress Airfield Road. Turn left immediately onto Blackwater Road.

Follow Blackwater Road 9.3 miles to preserve entrance on the left. (You will pass Blackwater Trading Post after 7.2 miles, then Blackwater Fire Station after 2 more miles). The preserve entrance is a few hundred yards past the fire station. There is a small parking area. There is a trail brochure at the start of the boardwalk. If you get to North Carolina, you've gone too far!

The Nature Conservancy's Virginia Chapter
www.sites.communitylink.org/tnc/

VCN Lobby Day

Mark Monday, January 19, 2004 on your calendars as Virginia Conservation Network Lobby Day. Briefings will be given on priority issues and attendees will hear from legislators about what to expect this session. Lobby Day will be at the Valentine Museum, 1015 Clay St., Richmond. Additional details will be posted on the VCN website, www.vcnva.org.

See the address label for your membership expiration date VNPS Membership/Renewal Form

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___ Check if you do not wish your name to be listed to be exchanged with similar organizations in a chapter directory

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

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The deadline for the next issue is **February 1**.

•Workshop

(Continued from page 1)

In 2002, Division of Natural Heritage began an intensive, three-year ecological study of the Virginia side of the Potomac River Gorge, west of Washington, D.C. The objective of this ongoing project is to identify and classify the full range of community types present. The presentation about this project will give an overview of the study area, its very diverse plant life, and the ecological dynamics which shape its plant communities and floristics. Fleming presented an overview of Blue Ridge communities last fall at the first Multi-State Native Plant Conference in Shepherdstown, W.Va., and those who saw it know workshop attendees are in for a polished presentation and beautiful photographs.

Stephanie Flack, Potomac Gorge

Project Director for The Nature Conservancy, will discuss the plan to conserve the plant diversity found in the gorge. Flack coauthored the plan, which identified seven focal natural resources, six critical threats to their survival, and nearly 30 strategies to abate threats and restore ecological integrity. She will discuss this plan, and also suggest ways that members of the Virginia Native Plant Society can help protect and restore this nationally significant conservation area. Aspects of this plan may serve as a model for preservation plans in other parts of our state.

Our afternoon lineup includes speakers working on protection of the state's biodiversity in regions around Virginia and in different types of management situations. Each member of the panel will give a short pre-

sensation, and then field questions from the audience.

Wetland ecology will be covered by Kirk Havens of the Virginia Institute of Marine Science. Kathy Baker, Stafford County Assistant Director of Planning, will discuss preservation in a rapidly developing area of the state. Faye Cooper will focus on Virginia Outdoors Foundation's conservation easement program as an illustration of the diversity of habitats and landscapes currently being conserved through easements. Bess Murray will tell us about efforts to preserve wilderness on federal lands.

We hope you can set aside Saturday, March 6 to attend this exciting event. It is an opportunity to find out more about the wonderful diversity of Virginia's landscapes, and to learn about some efforts to keep it intact.

•Seeds

(Continued from page 5)

be central Virginia (outside of Richmond or Charlottesville) with instruction concerning the protocols for plant identification, voucher specimens, seed collection methods, field processing and other information pertinent to the program. There will

be some lectures and field trips.

With 12 places available, this could mean one person from each VNPS chapter could participate and then return to instruct his or her chapter members who would be interested in participating.

If you have Internet service, you can visit the Kew Millennium Seed

Project site: <http://www.kew.org/msbp/> to learn more and from there you can read more about the project, about Michael Way, Clare Tenner ("Who we are"), and other international partners ("Project Partners").

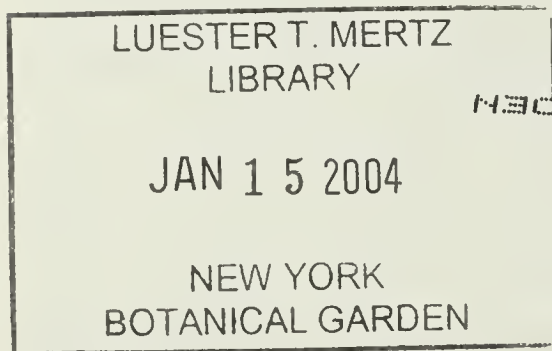
Contact Nicky Staunton with questions or to participate (nstaunton@earthlink.net or 703-368-9803).

www.vnps.org

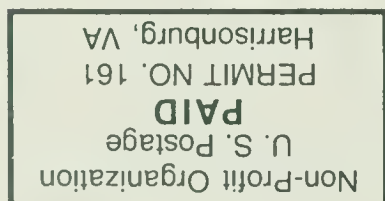
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Blandy Experimental Farm
400 Blandy Farm Lane, Unit 2
Boyce, VA 22620





Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY
Conserving wild flowers and wild places

www.vnps.org

Jefferson Chapter to host Annual Meeting

Mark your calendars for Saturday, October 2 -- that's the date of the VNPS Annual Meeting to be held in Charlottesville. Jefferson Chapter members have been working on a new, single-day format that will allow more VNPSers to attend.

The tentative meeting schedule begins with registration from 9 to 10 a.m. at the Holiday Inn-Monticello. The day's activities start with a speaker at 10 a.m. That program will be followed by a break, then silent auction bidding before lunch. There will be a second speaker after lunch, followed immediately by a variety of afternoon field trips. The chapter members hope to offer visits to the Rivanna River, the Blue Ridge Parkway, and Monticello.

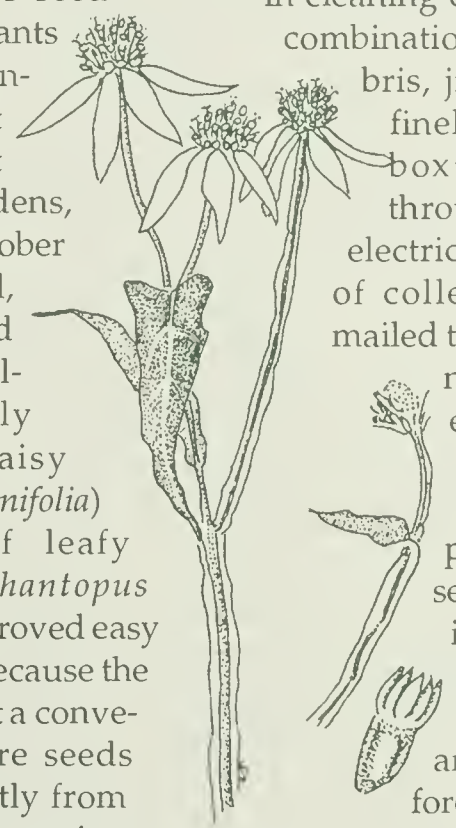
Those within a two-hour drive of Charlottesville will probably not need overnight accommodations. For those spending the night, a block of rooms has been reserved at an \$89 price if reservations are made by September 2. The Holiday Inn-Monticello hotel is located at 5th St. exit off of I-64.

Richmond students collect and donate Virginia native plant seeds

As part of honors program requirements, three University of Richmond students collected mass seed samples of two native plants for donation to the Millennium Seed Bank project currently underway at the Royal Botanical Gardens, Kew. On a fine, crisp, October morning, David Driscoll, Stefanie Honigbaum, and Bethany Shewmaker collected approximately 20,000 seeds of daisy wingstem (*Verbesina alternifolia*) and 12,500 seeds of leafy elephant's foot (*Elephantopus carolinianus*). Wingstem proved easy to gather in abundance because the fruiting heads are held at a convenient height and mature seeds (achenes) detach promptly from the receptacle. The low-growing elephant's foot required more effort because individual seeds (also achenes) are held more

tightly in the fruiting heads. After preliminary drying, the students assisted in cleaning each collection through a combination of hand picking of debris, jiggling the seeds over a finely roughened surface (a boxtop), and winnowing through the breeze of a small electric fan. Within a few weeks of collection, the seeds were mailed to Kew Gardens accompanied by herbarium vouchers, detailed site information, and a letter from campus officials granting permission to collect the seeds from UR Ball Property in Goochland County. At Kew, the seeds underwent a controlled drying process and careful packaging before entering cold storage for long-term preservation.

The Millennium Seed Bank is an ambitious project to collect (See *Seed Bank*, page 7)



Verbesina alternifolia
daisy wingstem
Illustration by Nicky Staunton

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Ash borer damage

From the president

Remember: Education about native plants is part of VNPS mission

Hello fellow VNPS members,

A large part of our mission is education. It is certainly needed. I belong to a homeowners association that has been debating a controlled deer hunt. Because it is an area where people live, the decision must be based on more than deer management, and I am not taking a position for or against here, but some of the comments I have heard really bother me. For example, one person agreed that deer have eaten most of the ground cover and saplings, but went on to ask why, since we are not the forestry department managing for timber and profit, should regrowth of the forest matter? Others have spoken against a hunt because the area is a refuge for wildlife. Well, if we are concerned about wildlife, the regrowth of ground covers and the shrub layer seems to me to make all the difference, and what we have now is a deer (and goose) refuge. Sure I am biased, and I consider plants part of 'wildlife,' but even if you think wildlife means animals, the animals depend on those plants. Are birds wildlife? Of course they are, and many of them need the berries our shrubs produce in order to migrate, or for places to nest. I don't know how to solve the problem with deer browse, but I see a real need to promote a better understanding of the part plants have in the ecosystem. Think about how you can be a part of that educational process. Look at the events in this year's calendar. There are opportunities to learn and to teach. Attend our workshop; participate in our annual meeting; invite your colleagues and neighbors to take a hike through the forest or meadows or bring them along to a chapter outing. You can make our mission work by being an advocate for the plants and ecosystems that you care so much about.

*Your president,
Sally Anderson*

VNPS FISCAL YEAR 2003 INCOME STATEMENT

INCOME:

Dues, Membership	\$27,217
Donations	\$4,410
Income Fundraising Letter	\$6,975
Sponsored Events (Net)	\$3,478
Sales, Gifts & Books	\$56
Interest Income	\$201
Dividend Income	\$-
Capital Gains on Donated Stock	\$(131)
Other Income	\$118
TOTAL INCOME	\$42,324

NET INCOME **\$4,895**

SUMMARY BALANCE

TOTAL ASSETS **\$22,418**

Current Liabilities **\$1,925**

Net Worth **\$20,466**

TOTAL LIABILITIES AND NET

WORTH **\$22,418**

EXPENSES:

Cost of Gifts, Books Sold	\$ -
Newsletter	\$11,094
Botany	\$2,614
Membership Development	\$1,387
Publicity	\$400
Registry Program	\$ -
Conservation	\$1,164
Long Range Planning	\$ -
Accounting/Tax Preparation	\$700
Fundraising Letter	\$1,055
Insurance	\$1,450
Taxes/License	\$58
Dues/Memberships	\$350
Administration	\$17,157
TOTAL EXPENSES	\$37,429

Native plant rescue guidelines being developed

A group of VNPS members is working on developing guidelines for rescuing and transplanting native plants. The guidelines are not intended to encourage this type of activity but rather to advise members and the public on best management practices to consider before taking on this type of project. Group members will be surveying chapter leaders and members in the next one to two months for their input. For more information contact Jessie Strother at sylvatica9@juno.com or 703-324-1795.

Prepared by Rebecca Rice Clay, VNPS Treasurer

Virginia Wildflower Celebration 2004

The 12 chapters of the Virginia Native Plant Society celebrate the rich diversity of the native flora of the Commonwealth each spring. Society members will share their enthusiasm for wild plants and wild places on field trips and wildflower walks, and during garden tours, plant sales, and a variety of other programs throughout the state.

You are cordially invited to any of the activities listed below; they are all open to the public. As some events require reservations, fees or additional instructions, use the contact information provided to obtain further information. Plants propagated by members will be available at chapter plant sales.

As you travel about the state, watch for the 2004 VNPS Wildflower of the Year, seashore mallow (*Kosteletzkya virginica*). It lights up the salt and brackish marshes of the Atlantic and Chesapeake Bay shores in summer with its rosy pink parade of 2-3-inch blooms from July to September or even October. It is one of the most common of the wildflowers that decorate the otherwise relentless summer green of grasses, rushes, and sedges across the vast expanses of marsh. So attractive and characteristic of the native coastal flora is the seashore mallow that it was selected by the South Hampton Roads chapter of VNPS as its floral logo.

Wildflower Calendar of Events

Goshen Pass Natural Area Preserve Dedication Ceremony - Tuesday, March 30, morning. Ceremony will take place in Goshen Pass at the wayside across from the natural area where a new plaque will be dedicated. On hand will be Joe Maroon, Virginia Department of Conservation and Recreation Director. Contact Katherine Smith, Upper James Rockbridge Chapter at persimmon@rockbridge.net.

Native Spring Wildflowers - Saturday, April 3, 10 a.m.-noon. Welcome spring with Blandy Native Plant Trail wildflowers and Richard Stromberg. \$4 for FOSA and VNPS members, \$6 non-members. Go to www.virginia.edu/blandy or call 540-837-1758 for information on Blandy Experimental Farm, The State Arboretum of Virginia.

Difficult Run Walk - Saturday, April 17, 10 a.m.-2 p.m. Rod Simmons, a leading regional ecologist, will lead a walk along a portion of one of Fairfax County's major watersheds, Difficult Run, which flows into the Potomac below Great Falls. Wear sturdy walking shoes. Cancels only in heavy rain. Registration required. Contact Shirley Gay at shirleywg@comcast.net or 703-920-1913. Take I-495 (Beltway) to Exit 13 in Virginia (Georgetown Pike). Head toward Great Falls, passing by Scott's Run Nature Preserve. After passing Madeira School, on the right, cross over a bridge. Begin looking left for an unmarked parking lot next to the road. The lot is about 1.3 miles from Beltway exit.

Calmes Neck Walk - Saturday, April 24, 10 a.m. Gary Fleming of the Division of Natural Heritage will lead walk to see Virginia bluebells and more. Call Sally Anderson at 540-722-3072 or email rccsca@visuallink.com.

Shenandoah Chapter Plant Sale - Saturday, April 24, 8 a.m.-3 p.m. in conjunction with the Riverfest in downtown Waynesboro (off I-64 in the Shenandoah Valley). For info on the festival go to www.riverspirit.org. Email bowlenchris@mail.firstva.com about plant sale.

Jefferson Chapter Plant Sale - Sunday, April 25, 1-3 p.m. Ivy Creek Natural Area on Earlysville Rd. just south of Woodlands Rd. on north side of Charlottesville. Part of Natural History Day event which includes displays of other conservation minded groups. Over 800 plants with emphasis on spring ephemerals. Call 540-832-3619.

Prince William Wildflower Society Annual Spring Garden Tour - Sunday, April 25, noon - 5 p.m. Annual Spring Garden Tour of three chapter member gardens. Contact Nancy Vehrs at nvehrs@attglobal.net or 703-368-2898.

Turkey Run Park Walk - Sunday, April 25, 2-4:30 p.m. Stan Shetler, Botanist Emeritus of the Smithsonian Institution, will lead this field trip at Turkey Run in the piedmont where steep hills rise 200 feet about the Potomac River shore. Colonies of Virginia bluebells blanket portions while squirrel corn and Dutchman's breeches cover hillsides. Also see trout lily, spring beauty, bloodroot and cut-leaved toothwort. Meet in parking lot C (picnic ground and restrooms nearby). Wear sturdy walking shoes. Cancels in heavy rain. Registration required. Contact Shirley Gay at shirleywg@comcast.net or 703-920-1913. Turkey Run Park located off the section of George Washington Memorial Parkway between Beltway and Rt. 123. Exits marked either direction.

Prince William Wildflower Society Annual Native Plant Sale - Saturday, May 8, 9 a.m.-noon. Bethel Lutheran Church, Manassas. Call Nancy Arrington, 703-368-8431 for information and directions.

Garden Fair at the State Arboretum of Virginia - Saturday & Sunday, May 8-9, 10 a.m.-4:30 p.m. More than 30 vendors including those selling native plants. A \$5 parking donation suggested. Go to www.virginia.edu/blandy or call 540-837-1758 for more information on Blandy Experimental Farm, The State Arboretum of Virginia.

Potowmack Chapter Spring Plant Sale - Saturday, May 15, 9:30 a.m. - 3 p.m. at Green Spring Gardens Park. The chapter will be selling plants from its propagation area which is behind the horticulture building. Ferns, perennials, shrubs and trees will be available. Over 15 other vendors will also be at Green Spring that day selling a variety of plants. Green Spring is located in Alexandria, Va. 1/4 mile north of Little River Turnpike on Braddock Road. For information, call the park at 703-642-5173.

Garden Conservancy Tour of Bird Hill - Saturday & Sunday, May 22-23. VNPS is a beneficiary of the Garden Conservancy's 2004 tour of Bird Hill, the garden of C. Colston

(Continued on page 4)

Wildflower Calendar of Events

(Continued
from page 3)

Burrell and D. Bruce Ellsworth in Free Union, Virginia, as part of the Garden Conservancy's Open Days Program. Garden open 10 a.m. to 4 p.m.; \$5 entrance fee. From Charlottesville, Route 29/250 bypass, take Barracks Road exit. Follow Barracks Road/654 out of town to where it joins Garth Road/601. Go straight 4.6 miles to Free Union Road/601 (Hunt Country Market on right). Turn right and go 4.1 miles to Free Union, pass a gas station, and road jogs left. Turn left onto Millington Road/665 and go .4 mile. Turn right onto Wesley Chapel Road/609. Go 2.4 miles and bear left onto Fox Mountain Road/668 (dirt road). Go .4 mile, then turn right onto Peavine Hollow Road. Park on the left after a short rise in the road. Do not enter paved driveway, but continue to the enter sign to catch a shuttle bus for the last mile to the garden. Busses will run continuously. For a regional or national 2004 Open Days Directory, call 1-888-842-2442 or visit www.gardenconservancy.org.

Bio-Blitz at Blue Ridge Center for Environmental Stewardship - Friday and Saturday, June 4-5. Participate in a 24-hour biological survey that is part contest, part festival, part educational event and part scientific endeavor. It is a race against the clock to see how many species can be found in a given time. Educational events will be held on Friday, and you can assist and interact with scientists on Saturday

while they sort, identify, count and tally. For information, contact Fiona Harrison at 540-668-7640.

Virginia BioBlitz 2004

Did you miss last year's BioBlitz at Douthat State Park? Here is your opportunity to spend 24 hours locating, identifying and recording all the biological species on site with other Virginia field botanists. The data collected is first verified and then entered into the data base of species in Virginia. The 2004 Virginia BioBlitz will be held at Virginia Commonwealth University's Rice Environmental Education Center on the James River. The event starts Saturday, June 12 at 9 a.m. and ends Sunday, June 13 at 3 p.m.

For more information, to volunteer, or if you would like to be a taxon survey team leader, contact Allen Belden at abelden@dcr.state.va.us. Allen, a field botanist with Natural Heritage, has agreed to coordinate team leaders and volunteers. He will send out group information as it becomes available.

Wildflower walks

Wildflower walks will be led by Marion Lobstein on these dates: Great Falls Park, Va., 10 a.m.-12:30 p.m. (third Sundays) in late winter/spring months: March 21, April 18, and May 16; Balls Bluff on April 18 from 2:30-4:30 p.m. Contact Marion at 703-536-7150 or mblobstein@earthlink.net for reservations.

Norfolk Botanical Garden hosts Birds & Blossoms Festival

The 2004 Birds & Blossoms Festival at Norfolk Botanical Garden, May 6-9, promises to be a bird and nature lovers' paradise. The festival, in its fourth year, offers a chance to see more than 260 bird species and this year's featured bird, the summer tanager, is sure to impress birders of all levels.

Experts will guide you on walking tours, boat tours, owl prowls, trips to the Great Dismal Swamp and islands of the Chesapeake Bay. The entire weekend is filled with exciting opportunities to celebrate the diversity of flowers and wildlife. Don't miss this opportunity to experience the best birding in Virginia!

Visit www.norfolkbotanicalgarden.org to register or learn more about field trips offered throughout the weekend. Registration is \$40 (receive \$10 off if you register before April 9). For more information or to register by phone call 757-441-5838.

Norfolk Botanical Garden is located at 6700 Azalea Garden Road, Exit 279 from I-64. Garden open 9 a.m.-5 p.m. daily. Admission \$6/adults, \$5/seniors, \$4/children (6-16), and children under 5 free. Boat tours \$3 (Children under 5 free). For information, contact Norfolk Botanical Garden at 757-441-5838.

Special offered to VNPS members on wildflower video

Nearly 100 species of spring wildflowers are covered in this exciting video, *Spring Wildflowers of the Mid-Atlantic Region*, with information on identification of these common spring wildflowers as well as information on medicinal and edible uses, life cycles, conservation, and plants to be avoided (such as poison ivy!). The video, coauthored by Marion Lobstein, John DeMary, and Suzanne Lohr and published by Botanical Views, LLC is available for \$16 (includes tax and 20 percent discount for VNPS members) plus \$3 shipping and handling. To order contact Marion at 703-536-7150 or Botanical Views, LLC, P.O. Box 2756, Purcellville, VA 20134.

Field Botany courses

Marion Lobstein will offer summer plant identification courses at Blandy Experimental Farm and State Arboretum of Virginia: EVEC 493/793 - Field Botany (3 credits through University of Virginia) 9 a.m.-4 p.m, June 21-24, June 28-July 1, and July 5-8. Course covers basic principles of botany with emphasis on classification, identification, and evolution of flowering plants. Course integrates lecture and laboratory with emphasis on fieldtrips concentrating on identification and ecology of flowering plants of the Mid-Atlantic. For information call Blandy Experimental Farm at 540-837-1758 ext. 21 or Marion at 703-257-6643. Marion will be offering this course on a biennial basis after this summer.

Virginia Bird Trails book out

The second in the series of Virginia Birding and Wildlife Trail books is now available. *Discover Our Wild Side: The Mountain Area from Front Royal to Cumberland Gap* orients visitors to birding trails open to the public. Includes colorful illustrations and text accompanied by maps, directions, and local information. Free from Virginia Department of Game and Inland Fisheries at 804-367-9369, BIRDINGTRAIL@dgif.state.va.us or www.dgif.state.va.us.

VNPS member discovers native plant showcase in Amsterdam

An invitation to lunch this past summer led to an unexpected discovery of native plant celebration outside of Amsterdam. Rob Honselaar, volunteer at the Hortus Botanicus, invited a group of us from the Hortus to sort of a mid-summer garden party at his allotment on the edge of the city. Rob's garden allotment is part of a larger complex known as a "volkstuin" or "people's garden" nestled on a parcel of land adjacent to the "Nieuwe Meer," New Lake, not far from "Schiphol" the city's airport.

Historically, such allotments date back to the 18th century when, originally, working-class folk were provided a place away from the city center to garden and enjoy the benefits of a healthier environment closer to nature. The concept evolved over time reaching a high-point in the early part of the 20th century when, during the 1920s and 1930s, social concerns merged with various workers' movements creating a communal atmosphere.

Today these volkstuints exist still much as they were originally intended, as retreats for city-dwellers, now becoming sort of seasonal small towns in and of themselves. Simple huts have become miniature villas where Amsterdamers spend the summer months with friends and family. Vegetable patches have largely given way to perennial borders, cut-flower gardens and shady enclaves.

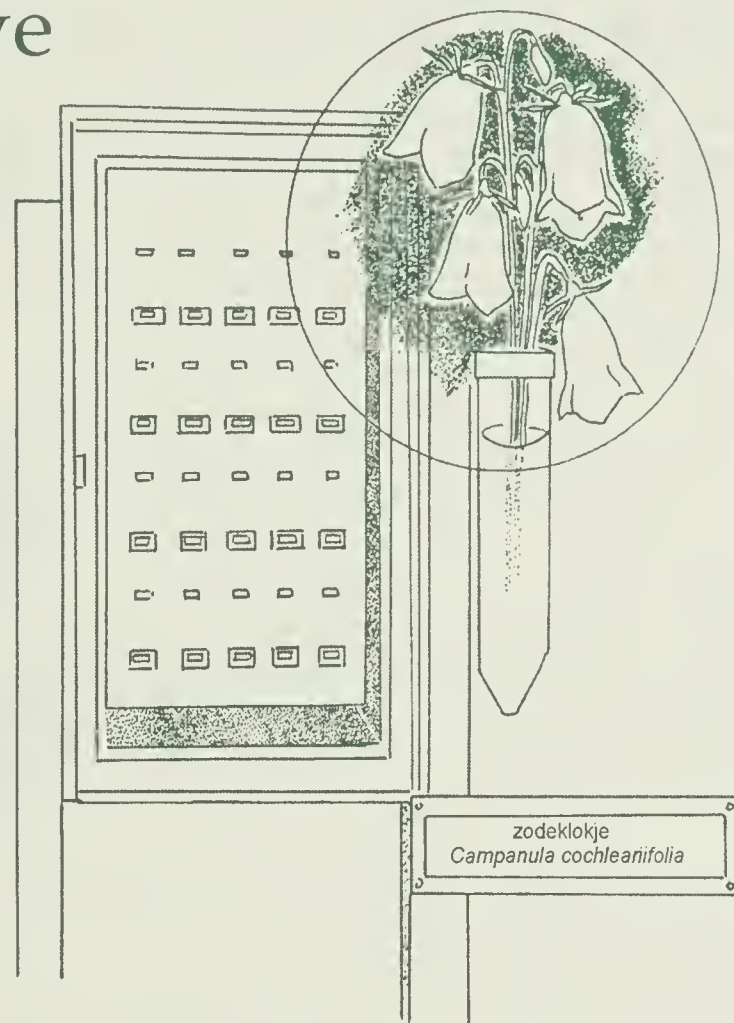
Some volkstuints may have a cafe', library, walking trails and/or park areas all organized and maintained by the summer residents. And it is in one of these communal parks that I discovered a delightful showcase of native flora. A native plant enthusiast who maintains a small area of parkland containing many wildflowers constructed a display case in which local flora are displayed and identified.

Vertical in design, the wooden

display case is painted a dark mahogany with a large glass front panel forming the basis of the structure. At first glance it is much like any such information case one would expect to find in a public park but this case is designed to hold cut flowers. Mounted on the interior of the case are metal clamps each holding a small tube or florist's reservoir for individual specimens. Beneath each tube is a metal label holder into which paper labels can be inserted identifying the various native flowers in bloom at any one time.

The result is a delightful display of no less than 20 native flowers complete with carefully handwritten identifying labels. Set against the mahogany background each flower, no matter how small or delicate, stands out like a jewel. This unexpected showcase is placed on the edge of a woodland not far from a meadow where nature, given a free hand, has produced numerous wildflowers which can be seen growing in the distance.

The idea is so simple, yet highly effective in raising awareness of native flora. Passersby are educated about the wildflowers growing not only in the park but along the roadside, paths and nearby lake as well. This effort to educate the community about native plants strikes me as a particularly Dutch solution to environmental education. The orderliness and straightforward presentation of the plant material speaks to Dutch efficiency in a country known for carefully managing its resources. And as the largest cut-flower producer and distributor in the world is it any wonder that the idea of presenting the flowers fresh



in individual reservoirs was chosen? One can't help but think that this concept, borrowed from a small community park in the Netherlands, could have application in the parks and public lands of Virginia. Whether it be state or city parks with native plantings or natural areas, such a display case, maintained by staff or dedicated volunteers, could become a quick and elegant reference for visitors entering a native area. Easily accessible, such a display could hold the attention of persons less inclined or unable to search for traditional display labels usually found at ground-level. And, hopefully, another person will discover the simple beauty of nature through wildflowers, gaining an appreciation and enthusiasm for native flora in their particular corner of the globe.

Michael Sawyer, First Vice President of VNPS, currently lives in Amsterdam, The Netherlands, where he works for the Hortus Botanicus, Amsterdam's botanic garden dating from 1638.

Invasive pest threatens Virginia ash trees

More than 190 ash trees in neighborhoods near the new Colvin Run Elementary School in Vienna, Virginia, will be destroyed by April because of evidence that some have been infested by a deadly exotic pest, Fairfax County officials said.

Most of the threatened ash trees are at Wolf Trap Farm Park or in common areas of the neighborhoods within a half-mile radius of the school in Vienna. About 30 trees are on private property, officials said.

Property owners and local civic groups who own such trees were notified by letter and invited to a public meeting in February at the school, which opened in September. The decision to destroy the trees was made by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service.

The tree eradication effort was prompted by the discovery of evidence of emerald ash borers in 16 trees planted at the school. The infested trees were purchased from a nursery in Prince George's County, which received them from a tree nursery owner in Michigan in 2002, Fairfax officials said, a violation of federal quarantine rules. The pest has destroyed millions of ash trees in southeast Michigan, where 13 counties are under quarantine.

The eradication effort must be completed by April 1,

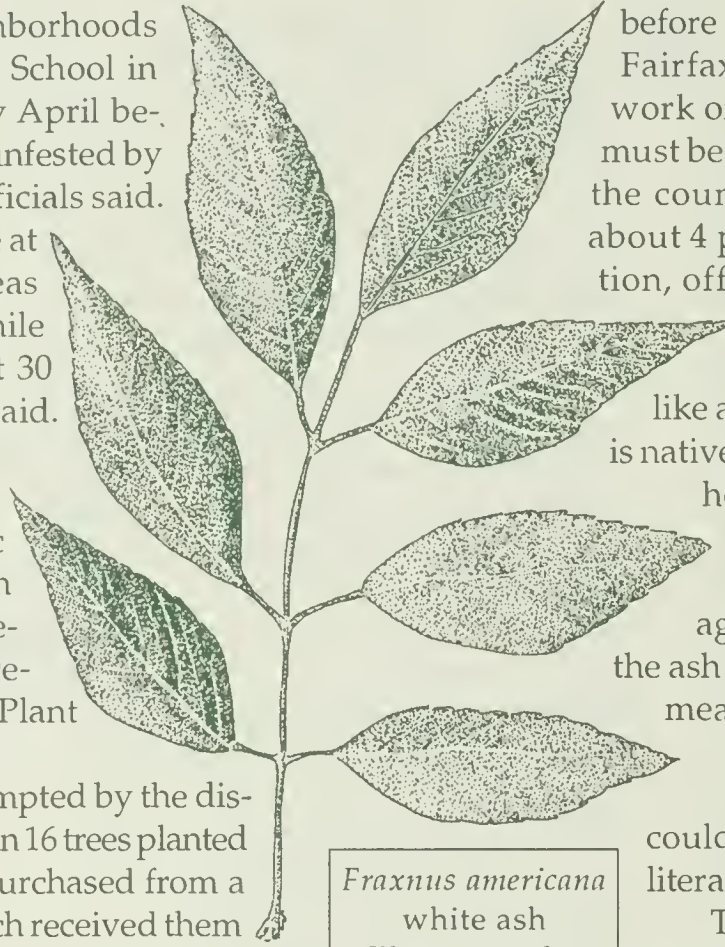
before the adult borers emerge in the spring, Fairfax officials said. Spraying does not work on the insects, which is why the trees must be removed before the borer spreads to the county's forests. Ash species make up about 4 percent of the county's tree population, officials said.

The emerald ash borer is about a half-inch long and looks something like a firefly dressed in a green satin suit. It is native to Asia but in recent years was somehow introduced to North America.

None of the insects actually has been seen in Fairfax County. But state agriculture officials found exit holes in the ash bark typical of the borer, which could mean adult insects escaped into the area near the school. The fear is that the parasites, if given a chance to spread, could decimate the local ash population, literally eating the trees from the inside out.

Troy D. Shaw, program coordinator of the county's forest pest program, said potentially infested trees near the school may be anywhere from 20 to 50 years old.

This article by C. Woodrow Irvin, originally ran in the Washington Post on January 29, 2004.



Fraxnus americana
white ash
Illustration by
Nicky Staunton

Sabbatical will help dream of modern Flora become reality

When I moved to Virginia from North Carolina almost 30 years ago and began my teaching career for Northern Virginia Community College (NVCC), one of my first questions was: Is there a *Flora of Virginia*? Since that time I have had the dream of a modern *Flora of Virginia* for my teaching and botanizing.

In 1999, NVCC began to offer three faculty semester sabbaticals with pay and benefits per academic year. In 2002, I applied for one of the those sabbaticals and was granted one for Spring Semester 2004 to focus on support work for the Foundation of the Flora of Virginia Project (FFVP). In the sabbatical application, the primary focus I proposed was to conduct field and scientific literature research to provide written background for the technical descriptions of approximately 225 species of spring-blooming plants.

Since this sabbatical began this

January 1, I have begun a solid start on description background work on the 225 species. In this basic research I am using a number of manuals for our area to compare descriptions of species found in Virginia. Researching these species descriptions in the *Manual of the Vascular Flora of the Carolinas*, the *Manual of Vascular Plants of Northeastern United States and Adjacent Canada* (2nd ed.), *Gray's Manual of Botany* (8th ed), and the *Flora of West Virginia* is like working with old and comfortable friends. As I am comparing descriptions and compiling a common description of each species, I go back into almost 40 years of personal and professional botanizing. The memories surrounding the excitement of the first time I saw a particular species come flooding back. The discipline of comparing measurements in millimeters and centimeters as well as comparing technical terms for leaf shape or hairi-

ness brings into play other parts of my brain.

This is the first step in compiling descriptions of Virginia species that will then move on to the second step of comparing these descriptions in the field and/or herbarium to Virginia populations of each species. A coauthor of the *Flora of Virginia* will then do the final editing and wording of each species description. As the spring flowering season begins, I plan to take many of the species I am working through step one to this second step. Beginning with skunk cabbage, I have literally already gotten my feet (and knees) wet in the field.

It is exciting and gratifying to have this sabbatical and support from NVCC to allow more time for my directly contributing to the development of the *Flora of Virginia*. My 30-year-long dream is partially being realized with this opportunity.

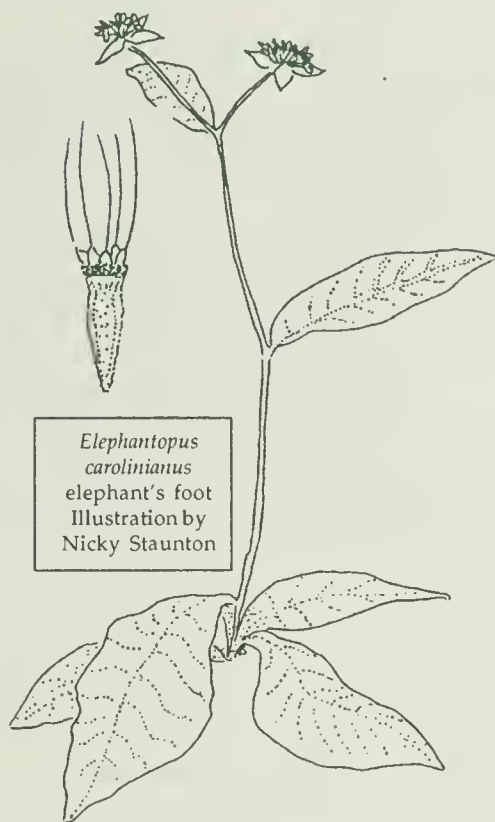
Marion Lobstein, Flora of Virginia Project

•Seed Bank

(Continued from page 1)

and store bulk seed samples of 10 percent of the plant species alive today on the planet. The program has nearly completed efforts to bank seeds of all plants native to Great Britain. Attention is now shifting to other parts of the world. Some special attention is directed at dryland plants, in part because their seeds are amenable to long term storage and also because of the pressing conservation issues faced by xeric ecosystems globally. However, seeds from all plant groups and from all habitats are avidly sought. Cooperative efforts with U.S. federal agencies are underway to gather samples from the western states and this past fall two representatives from Kew, Clare Tenner and Michael Way, visited Virginia and other eastern states seeking similar partnerships. A formal partnership constitutes a significant and fairly long-term commitment. In contrast, the small project undertaken by the Richmond students falls into the category of individual donations which Millennium Seed Bank officials are happy to receive as long as the samples meet their requirements in terms of seed count, quality, and documentation.

As explained by Way in a conversation with several VNPS officers and members at Blandy Farm, bulk samples



Elephantopus carolinianus
elephant's foot
Illustration by
Nicky Staunton

(up to 20,000 seeds) support the greatest number of uses for the program: one portion of the sample can be banked for dedicated long-term storage; another portion can be held in reserve, ready for use should a future conservation project require rapid access to viable seeds of that particular species; while other seeds can be used in Kew's several research projects on basic aspects of seed biology. Whereas most other seed banks focus on crops and related species, the Millennium Seed Bank has a much broader mandate because of its focus on conservation and basic seed science. Clearly, our future

will be enhanced by the efforts of both types of seed bank. After all, the simple act of saving seeds is one of the cornerstones of civilization. For information on the Millennium Seed Bank see back issues of this *Bulletin* or visit <http://www.rbgekew.org.uk/msbp/>.

W. John Hayden, VNPS Botany Chair and Professor of Biology, University of Richmond

Seeds of Success training offers unique opportunity

Michael Way, Coordinator of the Seeds of Success in North America is planning a training event for 12 persons in mid-July. The workshop will offer classroom instruction, followed by a day of field work. The location of the workshop is being arranged.

Once trained, volunteers will be expected to collect specific seeds and fulfill the protocol for collection. The selection of our species of Virginia native plants will be established by consultation with Virginia DCR-Division of Natural Heritage.

A powerpoint presentation about Seeds of Success is available now. If you would be interested in learning more or want to sign up for the training session, contact Nicky Staunton, nstaunton@earthlink.net or call 703-368-9803.

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$30

___ Student \$15

___ Family \$40

___ Associate (groups) \$40*

___ Patron \$50

___ Sustaining \$100

___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

I wish to make an additional contribution to ___ VNPS or ___ Chapter in the amount of ___\$10___\$25___\$50___\$100___\$(Other)_____

___ Check if you do not wish your name to be listed to be exchanged with similar organizations in a chapter directory

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

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The deadline for the next issue is May 1.

Spring wildflowers abound along Maury

Kirk Follo and John Knox of the Upper James River Chapter offer up their choices for viewing spring wildflowers in the Valley of Virginia. The trails on the Washington and Lee back campus (Lexington, Virginia), especially in the area along the Maury River to the Virginia Military Institute cliffs, are wonderful places to see spring wildflowers. April and early May (before the trees leaf out fully) are the best times.

Walk along the Maury River to the VMI cliffs, and then follow the trail that leads back to the right along the base of the steep wooded slope. You will see beneath familiar broadleaf trees, like tulip poplar, oak and hickory, an extraordinary display of native wildflowers. This is a remnant of the great eastern deciduous forest; and Washington and Lee has recognized its value and has made a commitment to protect the area, designating it the Washington and Lee Science Park. We attach a list of some of the showier wildflowers to be seen there. Not all will be in bloom at the same time, of course. For more information call Katherine Smith at 540-261-2562. This information was reworked from the

Washington and Lee Outing Club Guidebook. For a map of the area, see page 92 of the guidebook, which is available for \$15 from the Washington and Lee bookstore (540-458-8634).

Plants you are likely to see include: *Sanguinaria canadensis*, *Dentaria laciniata*, *Hepatica acutiloba*, *Jeffersonia diphylla*, *Dicentra cucullaria*, *Claytonia virginica*, *C. caroliniana*, *Caulophyllum thalictroides*, *Podophyllum peltatum*, *Viola canadensis*, *Erythronium americanum*, *Delphinium tricornis*, *Phlox divaricata*, *Hydrophyllum virginianum*, *Geranium maculatum*, *Trillium grandiflorum*, *T. sessile*, *Asarum canadense*, *Arisaema triphyllum*, and *Senecio aureus*.

Generous member response to request

The commitment of members to VNPS and its mission shone brightly as the final tally of donations in response to the 2003 fund raising letter was made. Your generous gifts have helped VNPS prepare for some of its important programs. You've never been more generous-- almost \$8,000! Sincere appreciation is extended to you from your VNPS Board of Directors.

Green Spring offers art in the garden

Artists with green thumbs or gardeners with a taste for art might want to visit Green Spring Gardens Park this spring for several special Art in the Garden exhibits.

Watercolorist Mary Smeallie will display her works at Historic Green Spring from March 7 through April 23. From May 2 to June 28, the Potomac Valley Watercolorist Society presents its works at Historic Green Spring and the Horticulture Center. The exhibit's opening reception is Sunday, May 2, 1-3 p.m. In addition, a fiber arts exhibition in the Horticulture Center runs through April 25.

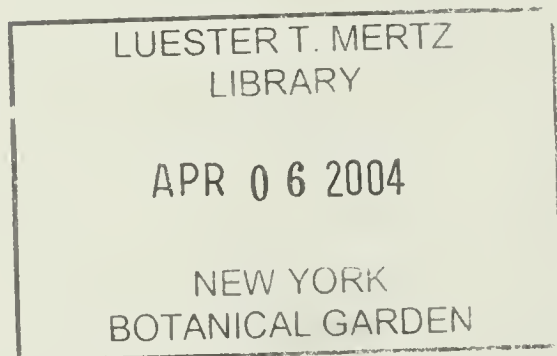
Green Spring is a 27-acre park located in Alexandria, Virginia. Visit www.co.fairfax.va.us/parks/gsgp for more information.

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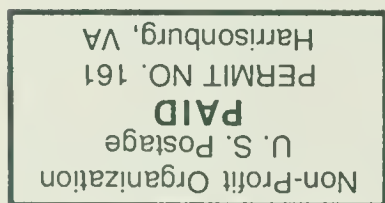
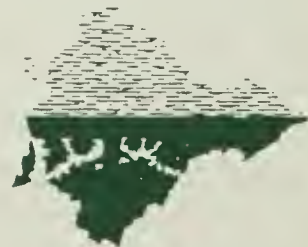
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Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

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Some of Virginia's "Most Wanted"



Arabis serotina
shale barren rock-cress



Helonias bullata
swamp pink

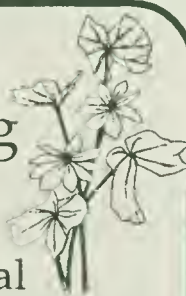


Iliamna corei
Peter's mountain mallow



Spiraea virginiana
Virginia spirea

New format at Annual Meeting October 2



The VNPS Annual Meeting, hosted by the Jefferson Chapter, will be held on Saturday, October 2 in Charlottesville. The new one-day format combines a speaker, a business meeting and field trips in a single day.

The day begins with registration and breakfast snacks from 9-10 a.m. The featured speaker's presentation begins at 10 a.m., followed by the VNPS membership meeting. Lunch will then be

(See Annual Meeting, page 3)

VDACS expands state list of endangered and threatened species

It is official. The Board of Virginia Department of Agriculture and Consumer Services (VDACS) approved amendments to the proposed changes in regulations for the enforcement of the Endangered Plant and Insect Species Act. The final vote on the regulations subsequently approved adoption of the regulations. The amendments to the regulations have been approved by the Attorney General and the regulation posted in the Register of Rules and Regulations in its final form.

We appreciate the approval by the board of VDACS for the listing of the recommended species and the board members are commended for their vision in giving protection to these plants and insects named in the regulation. Keith Tignor, State Apiarist/Endangered Species Coordinator, advised VNPS in April that several changes to the Regulations for the Enforcement of the Endangered Plant and Insect Species Act (2 VAC 5-320-10) are in effect.

Twenty plant and insect species have been added to the regulation, 9 endangered and 11 threatened. One plant species was moved from endangered to threatened listing. And, three species were removed from the regulation. A complete listing of amendments to the regulation is provided in the Virginia Register of Regulations at: <http://legis.state.va.us/codecomm/register/vol20/iss10/f2v5320.doc>. A summary of the legislation and a species list follow:

(See VDACS, page 5)

From the president

Spring brings mixed news and observations in the plant world

After a somewhat disappointing state legislative session, this spring finds us with something to celebrate – companion U.S. Senate and U.S. House of Representatives bills were introduced by Senator John Warner and Congressman Rick Boucher for four new areas of wilderness (see article, page 8). Those of you who saw Bess Murray speak at our March workshop know that the Virginia Wilderness Committee worked hard to get a bill. Please give this your support, as the preservation of wild plants in wild places is central to our mission.

Spring finally arrived in the northern end of the state, and it has been glorious. I hope all of you have been out to some of your favorite natural areas to see what's up. I've been on walks at two Piedmont registry sites, Calmes Neck and G. Richard Thompson WMA, and hope to revisit the second to see the trillium display in early May. I also spent some time at a rich property on Goose Creek in Loudoun County and went south to Buckingham County on the south side of the James River. The woods there are more dry and acid than here in the northern Shenandoah Valley, but there were many plants out and some nice surprises, like tiarella blooming on rock outcrops and streambanks.

If you garden with natives, or have them growing naturally at your home, it's fun to be able to watch

them emerge and study them through the seasons. How neat the may-apples (*Podophyllum peltatum*) look as they come up, beginning with a mysterious, greenish, white-pointed sheath. This splits open to reveal the emerging leaf wrapped like an umbrella. A plant that will flower has two leaves, with a fat white bud tucked between them at the top of the emerging plant. Later, the leaves will overtake the bud, and the flower will hang below them. Then you can continue to watch for the fruits or seed capsules. Another favorite of mine in this stage is the twin-leaf (*Jeffersonia diphylla*). While it is hard sometimes to catch this plant in flower, the capsule sticks around a long time. It reminds me of the tin man with his funnel hat. When the seeds are ripe the seam between head and hat separate part way and the seeds are released. I also puzzle over the evergreen rosettes of some of the wildflowers and try to remember what was where and see which plant it turned out to be.

There is still more to look forward to. This is the year of the Brood X cicadas, so hold your ears! I've had people asking questions about plant damage, and I do not know the answers. I plan to watch and see what effect the insects have on trees in my area. I'm going to bet the native plants fare pretty well, since they have a long history with these insects. Enjoy your wild plants.

Your President, Sally Anderson

Congress hears testimony about native plant issues

Recently, two premier spokespersons for native plants testified before the U.S. Congress concerning federal land management agency budgets. Emily Roberson is Director of the Native Plant Conservation Campaign (VNPS is an Affiliate of the NPCC). Her testimony in March before the Interior Appropriations concerned three areas within the FY 2005 budget.

Roberson requested additional funding to increase the number of botanists who are instrumental for management decisions in several federal agencies. She noted that agencies are severely understaffed in that area. For instance, the USFS employs 175 botanists to manage 191 million acres of forest – that is one botanist per 1.1 mil-

lion acres. Because plants are the foundation of ecosystems, management that protects plants is essential.

Second, recovery programs for imperiled species are understaffed and underfunded. Even though 60 percent of endangered species are plants, only 4.5 percent of recovery funding is spent on them. Finally, increased funds were requested for control of invasive species, which threaten native species and are costly in themselves.

Marianne Mooney, President of the Potowmack Chapter of VNPS, testified before the House Appropriations Committee, Subcommittee on Interior and Related Agencies about insufficient funding of invasive species control, including survey, research and eradica-

tion. She cited instances of invasive plant species in a number of states including Virginia, and asked for additional funding for federal land management agencies, with most concern for the U.S. Forest Service, the U.S. Fish and Wildlife Service and the National Park Service, whose budgets for invasive species control have been static for the past three years, while the problem increases. Her testimony included information to the committee on invasive plants, and on invasive forest tree pests.

For more information or text of the testimonies, contact the Potowmack Chapter of VNPS (www.vnps.org) or the Native Plant Conservation Campaign (www.cnps.org/NPCC).



Natural gardens in Alexandria open for tours

I've always been interested in gardening and plants, but not necessarily native plants. Despite being a geographer and having a career devoted early on to environmental design, I never heard of the term "native plant" until just a few years ago. After many years of gardening based upon the English ideals of naturalism and the perennial cottage garden look using



• Annual Meeting

(Continued from page 1)

served, after which members will gather for afternoon field trips. Morning events will be held at the Holiday Inn Charlottesville-Monticello, I-64 at 5th St., south side of Charlottesville. A block of rooms is reserved for those wishing to stay over. Dinner and overnight are optional and on your own. The Jefferson Chapter will provide informal field trips or information for sightseeing on Sunday. The VNPS Board will have a breakfast meeting on Sunday.

Look for all of the annual meeting materials in your next newsletter.

plants from anywhere in the world, I begrudgingly decided it was time to really dive into the world of gardening with native plants. In my mind I saw visions of dull colorless weeds and fields so overgrown that they were impenetrable to man or beast.

Miraculously, just the opposite has been the case. It has been a really exciting and educational experience, discovering the plants, finding them, planting them, and watching them grow. My five-year-old garden is looking better than ever, and it's made up of about 75 percent native plants of about 50 different types. The garden has a very natural look and basically resembles an English cottage garden with a few artistic twists. The plants are wonderful either in their color, foliage, or some unique quality, like the sunflower that blooms in October.

Within my plant collection there are perennials, trees, shrubs, ferns, and grasses that are indigenous to what we now call the United States. Rounding out the collection are just a few classic plants from Europe and Asia like pansies and hostas.

The most important feature of this native plant garden is that it is mostly organic and there is NEVER any use of



a chemical that kills insects. The bugs don't seem interested in bugging the native plants, and if they did, the plant would be subject to natural selection – right into the compost pile. The same goes for plants that need watering. I have watered the garden only once in the last five years, and the lawn has never been watered.

This is part of the ecological design of my garden ecosystem, in that the habitat is shared by birds. The birds have to have insects to feed their babies, so by not using any insecticides, the nesting wrens, robins, and chickadees have plenty of good food for their chicks. And, being an artist and naturalist with an inquisitive mind, I have been testing and studying the interactions between birds and the plants.

More on the Tour

What does moss have to do with birds? What birds eat pokeweed through the winter months? What do hummingbirds make their nests from? The exciting answers to these and many other questions will be available during your free guided tour, June 12 and 13.

Hear secrets from the natural world, tales from the dark side of shopping for native plants, philosophical waxing, occasional rants about what's wrong with our overall landscape paradigm, and creative insights into how things could be better.

When: Saturday June 12 & Sunday June 13; 11 a.m., 1 p.m., 3 p.m. Rain or shine.

What: Free guided tour of ecological designer Alan Kettler's natural gardens in Alexandria. See over 50 species of native plants, including trees, shrubs, grasses, ferns, and perennial wildflowers.

Tour details: Free, but reservations required. Maximum 12 per group.

For reservations: Call 703-721-1560 to reserve date and time. Speak slowly and clearly. Leave time and date you want to reserve. Leave phone number for confirmation.

Location: 6923 Duke Drive, Alexandria – between Route 1 and George Washington Parkway.

For more info and pictures visit <http://www.kettler.com/gardentour.html>

Seeds of Success training in July

Seeds of Success Americas Coordinator, Michael Way, and Clare Tenner, International Program Officer, Seed Conservation Department, will travel to Virginia this summer from Kew Royal Botanical Gardens to train VNPS volunteers. The training will be held July 10-11 in Howardsville at John and Nancy Hugo's, "Higher Ground." Twelve participants will be chosen from those who have volunteered to be trained in the protocols for the SoS seed bank.

Seeds of Success is the U.S. branch of the Kew Millennium Seed Bank Project that with its partner, The Plant Conservation Alliance, has a goal of collecting seed from 10 percent of the world's seed-bearing flora by 2010. The Plant Conservation Alliance, the U.S. Department of Interior, and Bureau of Land Management have been partnering with Kew on the project and recently collected seed from the North American prairies. VNPS is a charter affiliate of The Plant Conservation Alliance. Carol Spurrier of BLM is the national coordinator. Visit www.nps.gov/plants/sos for updates about this project. Volunteers will receive instruction and perform field work to identify, collect and process

seed of targeted native plants along with a specimen plant for the project herbarium. Participants will be expected to collect seed of their target plant(s) for several seasons.

While the prime mission of VNPS is "conserving wild flowers and wild places" *in situ*, it is forward thinking to store seeds of selected plants *ex situ* in the cryogenic vaults of the Millennium Seed Bank Project at Kew for insuring survival of botanical species. Preserving plants, the base support of all life, is essential to assure continuance of all life. In the face of the fact that habitat loss for all species is the top factor reducing biodiversity in America, there is keen logic in saving plant seeds. An astounding number of acres is lost daily to development and misuse of natural resources.

Over 36 million acres have been lost since 1970—or 2 acres a minute. Rural land was lost in the 1990s at a rate of 2.2 million acres a year. Participating in Seeds of Success collection and storage of selected native plant species in Virginia is another way of conserving wild flowers and wild places, further complementing our mission of habitat conservation.

Text and illustrations readied for *Virginia Flora*

Work continues on all levels of preparing text and illustrations for Virginia's first contemporary flora and the newest flora of neighboring states. David Frodin of the Herbarium at the Royal Botanic Gardens, Kew, states the situation of Virginians clearly, "...*Flora virginica* (1739-43) by Johannes Gronovius—to this day without a descriptive successor -. . . ." ("Floras in Retrospect & for the Future" *Wildflower* 20.1 2004)

Our students, natural resources managers, botanists, both vocational and avocational, pharmaceutical researchers, landscapers, nurserymen and professionals who make decisions about land use and planning will benefit from a manual of Virginia's flora that will contain descriptions of each of Virginia's plants. The information from the *Atlas of the Flora of Virginia* will furnish documented counties for each plant. For each of Virginia's 4,000 plant species, Lara Gastinger will create entirely new illustrations mostly from specimens and will use herbarium specimens when necessary. Co-authors are Chris Ludwig, Chief Biologist of Virginia DCR Division of Natural Heritage and Alan Weakly, Curator of the UNC Herbarium.

Raising funds for the Flora Project continues. Studies have revealed that donations by individuals comprise nearly 80 percent of the necessary funding for projects. If you would like to help the Flora of Virginia Project move faster toward completion, you are invited to send donations (payable to Foundation of the Flora of Virginia) to: Christopher J. Ludwig, Foundation of the Flora of Virginia Project, Box 512, Richmond, VA 23218-0512.

Report from Spring Pond

A visit to Maple Flats, Augusta County, Virginia, in early May began along a beautiful path of Forest Service Road 42, Coal Road, with Virginia native plants in bloom, one red eft, and six tiny frogs that were probably northern cricket frogs. Herbaceous surprises in bloom were *Iris verna*, *Hypoxis hirsuta* and *Lupinus perennis*. Tiny native dandelions (*Krigia virginica*) were seen along the way.

We arrived at Spring Pond, the former G1 (globally rare) community that developed over an estimated 10,000-year period. Once ringing this beautiful pond were 400 swamp pinks (*Helonias bullata*) of the Lily family. They and their plant community were drowned due to beaver activity in the spring-fed pond. We saw no *Helonias bullata*, which cannot survive continual inundation and full sunlight. Corrective reduction of the water levels with a drain pipe did not restore the population. The beaver lodges appear unused, but the water level is still high. In addition to the loss of the swamp pinks, the damage is evident by dead trees and shrubs, trees felled by beaver and a general gray, gloomy aura in the midst of the forest's vernal green.

There were some large cranberry (*Vaccinium macrocarpon*) off the end of a dangerously unstable low water-level boardwalk. Around the shore edge, the pond was ringed by golden club (*Orontium aquaticum*) in full, but disheveled, bloom. A number of pre-beaver years ago, they had filled the center of the then much shallower pond. At the woods' edge, a few azalea (*Rhododendron periclymenoides*) were beginning to bloom. A vigorous group of cinnamon, regal and interrupted fern were beginning their season and there were several other fern species in the area. A small white violet community (*Viola primulifolia*) was beginning to bridge the gap from water to woods' edge.

On the way to the pond, we met Michael Smith's Shenandoah Chapter group and Charles "Moe" Stevens. Moe has located other swamp pink sites in the area but noted that this Spring Pond community wouldn't be possible again for another 10,000 years.

Sally Anderson (Piedmont), Anita Cooper (Shenandoah), Nicky Staunton (PWWS)

Species	State Listing - 03	State Listing - 04
<i>Aeschynomene virginica</i>	<u>none</u>	<u>Threatened</u>
<i>Amaranthus pumilus</i>	<u>none</u>	<u>Threatened</u>
<i>Arabis serotina</i>	<u>Endangered</u>	<u>Threatened</u>
<i>Bacopa innominata</i>	<u>Endangered</u>	<u>none</u>
<i>Buckleya distichophylla</i>	<u>Endangered</u>	<u>none</u>
<i>Cardamine micranthera</i>	<u>none</u>	<u>Endangered</u>
<i>Carex juniperorum</i>	<u>none</u>	<u>Endangered</u>
<i>Carex polymorpha</i>	<u>Endangered</u>	<u>none</u>
<i>Corallorhiza bentleyi</i>	<u>none</u>	<u>Endangered</u>
<i>Echinacea laevigata</i>	<u>none</u>	<u>Threatened</u>
<i>Fimbristylis perpusilla</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Helenium virginicum</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Helonias bullata</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Ilex collina</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Iliamna corei</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Isotria medeoloides</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Juncus caesariensis</i>	<u>none</u>	<u>Threatened</u>
<i>Nestronia umbellula</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Nuphar sagittifolia</i>	<u>none</u>	<u>Threatened</u>
<i>Platanthera leucophaea</i>	<u>none</u>	<u>Threatened</u>
<i>Ptilimnium nodosum</i>	<u>none</u>	<u>Endangered</u>
<i>Rhus michauxii</i>	<u>none</u>	<u>Threatened</u>
<i>Scirpus ancistrochaetus</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Scirpus flaccidifolius</i>	<u>none</u>	<u>Threatened</u>
<i>Spiraea virginiana</i>	<u>Endangered</u>	<u>Endangered</u>
<i>Trifolium calcaricum</i>	<u>none</u>	<u>Endangered</u>

underline indicates change from 2003 to 2004

Be on the lookout for dying Ailanthus

Here's the burden of this missive. As a pathologist for most of my career, I tried to save trees! Now, I have become a switch hitter, and have joined the weed killers of my department at Virginia Tech. I am now trying to kill trees, actually only one! It is the exotic, weedy, proliferating, invasive, stinky, nasty Ailanthus or Tree of Heaven – official name *Ailanthus altissima*. It is often confused with the roadside sumac with the compound leaves.

Unlike the native sumac, Ailanthus has become a plague to highways, homeowners, farmers, foresters and appears on almost any site where a native plant or tree could grow. One survey, for instance, found that it grows at least along one-third of the road distance from the Christiansburg I-81 exit up to I-64 at Staunton and

east to Richmond! That turns out to be at least hundreds of thousands of trees. Ailanthus grows singly or in "clumps" (copses). It regenerates via seed and root sprouts, and exudes a highly toxic chemical that kills many other plants. In the late 1990s, I found a fungus (*Fusarium*) associated with dying Ailanthus trees on several diverse geographic sites. This suggests a potential biocontrol agent (rather than the use of herbicides in this chemophobic age). If you are aware of any dying trees this growing season, I would greatly appreciate your advising me of the exact site so I might visit (reedr@vt.edu or 540-231-7479). Look for dead or dying trees that may have yellowing/flagging leaves.

Jay Stipes, Professor Emeritus of Plant Pathology at Virginia Tech

VDACS endangered species legislation

(Continued from page 1)

TITLE 2. AGRICULTURE: STATE BOARD OF AGRICULTURE AND CONSUMER SERVICES

Title of Regulation: 2 VAC 5-320. Regulations for the Enforcement of the Endangered Plant and Insect Species Act (amending 2 VAC 5-320-10).

Statutory Authority: § 3.1-1025 of the Code of Virginia. Effective: Feb. 26, 2004.

Agency Contact: Frank M. Fulgham, Program Manager, Department of Agriculture and Consumer Services, 1100 Bank Street, Room 402, Richmond, VA 23219, telephone (804) 786-3515, Fax (804) 371-7793 or e-mail ffulgham@vdacs.state.va.us.

Summary: The amendments (i) remove the currently named plants that are no longer considered globally rare and (ii) add those threatened or endangered plant and insect species that are considered rare both globally and in Virginia. Summary of Public Comments and Agency's Response: A summary of comments made by the public and the agency's response may be obtained from the promulgating agency or viewed at the office of the Registrar of Regulations. CHAPTER 320. RULES AND REGULATIONS FOR THE ENFORCEMENT OF THE ENDANGERED PLANT AND INSECT SPECIES ACT. 2 VAC 5-320-10. Protection Listing of endangered and threatened plant and insect species.

Under authority of the Endangered Plant and Insect Species Act (§§ 3.1-1020 through 3.1-1030 of the Code of Virginia), A. The Board of Agriculture and Consumer Services hereby adopts the following regulation in order to protect designated plant and insect species that exist in this Commonwealth. All designated species are subject to all sections of the Virginia Endangered Plant and Insect Species Act (§§ 3.1-1020 through 3.1-1030 of the Code of Virginia).

VNPS winter raffle

Congratulations to our lucky winner of a Chincoteague weekend! The winning winter raffle ticket, drawn at our Spring Workshop in Richmond, was held by Nicky Staunton, immediate past president, current second vice president and member of the Prince William Chapter. After all the work Nicky has done, she deserves a vacation! Thanks to Joslin Gallatin for her generous donation to VNPS, which raised \$730 for VNPS. Watch the newsletter for a similar getaway opportunity next year.

New Virginia wilderness areas proposed in Congress

This year, Virginians have another opportunity to protect some of the wildest parts of our public lands. To celebrate Earth Day, Congressman Rick Boucher and Senator John Warner introduced identical House and Senate bills (HR 4202 & S 2342), placing 40,000 acres in the National Wilderness Preservation System. The 2004 Virginia Ridge and Valley Wilderness and National Scenic Area Act would create four new Wilderness Areas, five additions to existing areas, and two new National Scenic Areas.

The four new areas are: Stone Mountain in Lee County, beautiful, remote mountain habitat with two rare salamanders; Raccoon Branch in the Mount Rogers National Recreation Area; Brush Mountain, a surprisingly wild ridge quite close to Blacksburg; and Brush Mountain East, in Craig County. Proposed Wilderness additions are Lewis Fork (Smyth and Grayson), Little Wilson Creek (Grayson), Peters Mountain (Giles), Mountain Lake (Giles and Craig) and Shawvers Run (Craig). The two National Scenic Areas are Crawfish Valley (Smyth) and Seng Mountain (Smyth).

The Virginia Wilderness Committee and colleagues have worked for four years to gain local support for these areas in the Jefferson National Forest in southwest Virginia. Wilderness Areas are

managed under the guidelines of the 1964 Wilderness Act. Hunting and fishing are permitted, as are hiking, horseback riding, camping, nature study and wild food gathering. Excluded are road building, logging and mining, new permanent structures, motorized travel, bicycling and mechanized tool use except for emergencies. Wilderness Areas are designated by an Act of Congress and can only be undone with another act, which has never happened.

The U.S. Forest Service management plan for each forest, revised every decade or so, recommends Wilderness Study Area status for suitable places, and wilderness advocates usually include these

•Ivy control (Continued from page 6)

and, using a trowel or small shovel, promptly dig out new leaves along with any adjoining vines and stems.

After the underground ivy is uprooted, the next step is to repair the disturbed soil. Using a bow rake, regrade the soil to the desired slope. Some areas may require additional top soil to achieve proper contour or accommodate a new use. If erosion and/or weed control are concerns, mulch soon after removing the ivy. Alternatively, if turning the area into a new lawn, regrade to slope, apply seed,

as they work toward a bill. This year two recommended areas are not included because of lack of local support. It is hoped that VNPS members will welcome these efforts to protect Virginia's shrinking native habitat. Individual or organizational letters of support and encouragement for early passage can be sent to Senator Warner or Congressman Boucher. We at VWC would be grateful to receive copies of any letters. And we would be very happy to supply any further information, or answer any questions.

Elizabeth Murray, Jefferson Chapter VNPS
(Virginia Wilderness Committee, 1601 Bentivar Farm Road, Charlottesville VA 22911; 434-973-6693; jjm5A@virginia.edu)

and top dress with a thin layer of new soil or soil/compost mix.

Repeat these steps to finish removing English ivy from your entire property. After the ivy is gone, look proudly at the reclaimed open space, and ponder the many possibilities for your next project. One simple option, particularly for shady areas, is shade-loving, non-invasive ground covers. Initial possibilities include wild ginger, various ferns and hostas, epimedium and sweet woodruff.
(Andrew Preziosi is a landscape contractor in Arlington, Virginia. He can be contacted at andrewprez@juno.com)

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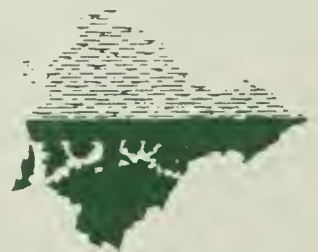
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Bulletin

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Southwest Virginia trip: Hard walk brings big rewards

"Deep in the heart of the Virginia Highlands, in that lost-in-time-and-space in the southwest of the state, lies the village of Abingdon . . ." Virginia: A History & Guide, Tim Mulligan, 1986

Abingdon and Southwest Virginia: The destination of nine VNPS members leaving northern Virginia on Friday, May 21, to explore the Pinnacle Natural Area Preserve and Whitetop Mountain, two of Southwest Virginia's many botanically rich areas. Recent spring workshops on the state's biodiversity and Doug Ogle's presentation, "Rare and Unusual Plant Species and Their Communities in Southwestern Virginia," at the September annual meeting inspired our trip. In addition to the author, participants included Sally Anderson, Carrie Blair, Anita Cooper, Toni Crouch, Joann Krumviede, Michael Sawyer, Martha Slover and Nicky Staunton. (This article covers

the Pinnacle; Whitetop will follow in the November *Bulletin*.)

We found Abingdon to be a charming town, actually one of the oldest in western Virginia, dating from around 1750, with lovely old homes on tree-lined streets, a busy downtown area with interesting shops, and enough restaurants to serve the surrounding countryside. Thousands of visitors come to town for the two-week "Virginia Highlands Festival" in July and August each year.

Early Saturday morning, David Richert, southwest region steward for the Virginia Department of Conservation and Recreation's (DCR) Division of Natural Heritage and our guide for the Pinnacle, met us at our

motel for the short drive to the preserve's entrance near Lebanon in Russell County. This 554-acre site has been a DCR property since 1992. Its geological diversity, basically limestone that in some places has been infused with magnesium to form a harder material, dolomite, over the past 350 million years, has led to a wonderful biological diversity that includes six rare plant species.

Soon after we entered the preserve David pointed out several clumps of the rare glade spurge, (*Euphorbia purpurea*) (G3 S2, G-global, S-state, 1 is rarest) growing on the bank of a small stream. The plants, about 18 inches tall and nondescript to my untrained eye, had finished blooming

(See *Southwest Virginia*, page 4)

Flora of Virginia Project progresses

Virginia's flora is always on my mind. To turn a phrase, the *Flora of Virginia* is on my mind, also. Whatever the season or month, the plants that live in Virginia's natural areas are part of our landscape, or our "place." Are they important to our lives? You bet! Your life depends on them.

Can they exist in spite of the havoc imposed upon their habitats?

Somewhere, perhaps. Sometimes, perhaps. The forests erased, the woods' edges removed, the streams filled legally using mitigation tools, creeks channeled through buried culverts result in the vegetative life on development and highway sites being... gone.

Do we know what plant com-
(See *FOVP*, page 5)

VNPS Annual
Meeting

Charlottesville

October 2

Registration form
inside



Old growth forests find friends in new conservation foundation

Just five percent of all U.S. forests are old-growth. In the eastern U.S., percentages of old-growth forest drop to only half to one percent overall and to just a quarter of one percent in Virginia. (Mary Byrd Davis, *Eastern Old Growth Forests*). Much of the remaining old-growth is confined to isolated coves and ridgetops in areas inaccessible to logging. One knowledgeable forester, upon hearing the above statistics, was surprised by the high percentage, as he saw it, of old-growth in Virginia and said he didn't know where it was located. This does not bode well for species, both plant and animal, that require old-growth characteristics to survive and flourish.

The good news is many Virginia private forest owners are interested in conserving and managing their forests in a natural and sustainable fashion toward old-growth succession. Often, forest owners need assistance with the "how to's" of old-growth forest development and management. Enter The 500-Year Forest Foundation. Initiated in 1997, the foundation, a non-profit forest conservation organization based in Lynchburg, works to identify, steward, and enhance forests in partnership with forest owners toward the development of permanently conserved old-growth forests and the biodiversity natural to those forests. The foundation is also concerned with preserving habitat for native flora and fauna and establishing sites for eastern old-growth research as well as environmental education.

Currently, The 500-Year Forest Foundation is nearing permanent agreements with forest owners to develop forest management plans that will move as many as four forests in central and southwest Virginia toward old growth. In all of these forests, the foundation's preliminary inventories showed great plant diversity and, in one forest, a rare native plant species. This is just a start toward the foundation's vision of 500-year forests (forests nearing or having achieved old-growth succession) scattered throughout Virginia. And, with the support of a partnership with the Virginia Department of Conservation and Recreation, the foundation will help to improve the amount of old-growth in Virginia and the habitat for those native species that flourish in an eastern old-growth ecosystem.

For more information, visit The 500-Year Forest Foundation on the web at www.500yearforestfdn.org, call 434-384-2324, or email highview@lynchburg.net. If you know of a prospective forest, please call or visit the "Nominate a Forest" page on the foundation website.

Article by Jeff Smith

VNPS 2005 Newfoundland Trip

July 9-18, 2005 Karl Anderson, Leader

Other information will be in the next VNPS Bulletin. For information or to sign up for one of the 14 spaces contact Nicky Staunton at nstaunton@earthlink.net or 703-368-9803.

From the president

Plan to attend Annual Meeting

Hello VNPS members,

I hope you will all consider making the trip to Charlottesville for our Annual Meeting this year. The Jefferson Chapter has come up with a great new format. The gathering will be a single-day event, with a speaker and the meeting during the morning. Featured speaker Tom Dierauf gives a wonderful presentation. After lunch, select from a wide variety of field trips or a workshop if you decide a hike is not for you. Although no meeting events are scheduled Friday night, there is a First Friday celebration in the city that features open art galleries, snacks and music. Maybe you will go by a favorite spot or see a new natural area on the way. By October 2, fall will be upon us, but the late season flowers should still be blooming.

And those of us who are keeping up with the Kew Seeds of Success project should be able to tell you something new about seeds. The recently completed weekend training session was attended by members from several parts of the state. I hope your chapter was represented, but if not, a presentation and an information manual are available and one of us will be glad to explain the project. I think we all left the training feeling like a new world was opened up for us. I'd like to thank Michael Sawyer, 1st VP, for getting us started on the project, Nicky Staunton, 2nd VP, for pulling it all together, our Botany Chair John Hayden for all of his general plant knowledge and herbarium skills, and Nancy Hugo for her excellent facilities. I feel richly rewarded when I think of the people I meet and the many things I learn from our VNPS activities.

Your president,
Sally Anderson

Exotic tree of heaven is hell on native habitats

Betty Smith's description (see box) of tree of heaven (*Ailanthus altissima*) from her 1943 novel, *A Tree Grows in Brooklyn*, is as vivid and apt today as it was 60 years ago. And when a female *Ailanthus altissima* can produce well over 350,000 seeds every year, uneaten by bird or squirrel or insect, it can become a horrendous pest, not only in poor neighborhoods, but everywhere soil has been disturbed. Tree of heaven is commonly known in this country by its genus name, *Ailanthus*, because it is the only species in that genus here. Indigenous to Asia, *Ailanthus*' range now stretches from Canada to Argentina. It is a serious plant pest in numerous other temperate climates and causes problems in the wild in all but 10 of our states. *Ailanthus* is one of 13 tree species that are listed as "Invaders of Natural Areas" by the U. S. Native Plant Conservation Alliance.

Ailanthus has had a long time to become such an entrenched feature of the urban landscape and the countryside. It originally came to the United States over 200 years ago. William Hamilton, a wealthy patron of the arts, who collected native and exotic plants for his gardens at his "Woodlands" mansion, brought *Ailanthus* from England in 1784. The English have had it since 1751 when Pierre d'Incarville, a Jesuit missionary, brought it to England from China. Back then it was called *Toxicodendron altissimum*, because the first person to describe it in botanical literature in 1768, Phillip Miller, thought it was related to poison ivy.

But the major influx of *Ailanthus* into the United States occurred after 1820, when (as reported by Dr. Elizabeth Wells of George Washington University and Rebecca Brown, her graduate student) William Price began importing it for sale as a landscape tree to residents in New York, Boston, Washington, and Philadelphia. By the 1840s it was commonly found in nurseries in the east. And out west about the same time, many Chinese brought seeds of *Ailanthus* when they immigrated to California during the gold rush because they used parts of the tree for medicinal purposes, including treating coughs, dysentery, and hemorrhoids.

In 1916 it was correctly placed in the *Simaroubaceae* family, by William

"The one tree in Francie's yard was neither a pine nor a hemlock. It had pointed leaves which grew along green switches which radiated from the bough and made a tree which looked like a lot of opened green umbrellas. Some people called it the Tree of Heaven. No matter where its seed fell, it made a tree which struggled to reach the sky. It grew in boarded-up lots and out of neglected rubbish heaps and it was the only tree that grew out of cement. It grew lushly, but only in the tenement districts.

"You took a walk
ternoon and
neighborhood,
saw a small one
through the
to someone's
knew that soon
Brooklyn would



on a Sunday af-
came to a nice
very refined. You
of these trees
iron gate leading
yard and you
that section of
get to be a tene-

ment district. The tree knew. It came there first. Afterwards, poor foreigners seeped in and the quiet old brown-stone houses were hacked up into flats, feather beds were pushed out on the windowsills to air and the Tree of Heaven flourished. That was the kind of tree it was. It liked poor people."
(From *A Tree Grows in Brooklyn*, Betty Smith, 1943, Houghton & Mifflin)

Tennyson Swingle and called *Ailanthus* (from an Indonesian language meaning tree of heaven) *altissima* (meaning tallest). According to Stan Shetler, botanist emeritus from the Smithsonian Institution: "The oldest specimen of *Ailanthus altissima* in our herbarium from this area was collected in the flowering condition on June 11, 1876, by Lester F. Ward in D.C." Today if one looks in the backyards of Capitol Hill townhouses, along railroad tracks, in industrial sites, in old parking lots, or anywhere along major highways, it is easy to spot.

Virginia has been severely infested with tree of heaven. All but three counties have *Ailanthus*, according to the *Atlas of the Flora of Virginia*. The Virginia Department of Conservation and Recreation includes it on its list of plant species which are "highly invasive."

Look for it along any of the major interstate highways in Virginia. One Virginia Tech study by Dr. Jay Stipes found that along Interstates 81 and 64 between Christiansburg and Richmond, 30 percent of the tree species over 192 miles of roadway were *Ailanthus*.

Along roadsides, *Ailanthus* is a pioneer species, often growing in dense groves where the land has been graded leaving subsoils. Young stands of it

look much like a colony of sumac, so it is well to learn how to distinguish the species. Older *Ailanthus* can be over 80 feet tall. From afar, the fronds of compound, pinnate leaves look like those of a black walnut. Those fronds can be more than 24 inches long. Up close, the individual leaflets of *Ailanthus* are easily identifiable at the base of the leaflet by the small lobes with distinctive gland dots. Another distinguishing feature is its foul odor. If one breaks off a twig exposing the inner pith, it becomes clear where *Ailanthus* got one of its other common names: stinktree.

The flowers, on the other hand, are less noticeable. They are greenish yellow with five petals and sepals. The species is dioecious with male and female flowers on different trees. They start blooming in April in the southern U.S. and through July in Canada. The flowers are pollinated by a variety of insects and beetles.

When the flowers set seed on the female tree they form clusters of winged seeds called samaras. The samaras may be green, to yellow, to orangey-red, but then change to tan and last on the tree over the winter until dispersed by the wind or by water in spring.

If those flying samaras land in dis-

(See *Ailanthus*, page 6)

• Southwest Virginia

(Continued from page 1)

and were forming fruit, a slightly warty round capsule. It probably would not have been showy even in bloom since the flowers have no petals and no sepals. "Well, rare plants are easy to spot at the Pinnacle," I thought — "on to the next one!"

David had promised us a look at Canby's mountain-lover (*Paxistima canbyi*) (G2 S2, SOC [species of concern]). And, we saw it — after about six hours, at least 100 other neat plants, and what seemed like 10 miles, half of it up the side of a mountain — growing happily in limestone outcrops at the top of Copper Ridge. So much for easy viewing.

In between these two species we saw numerous plants that were rare to Northern Virginians. David had given us a list of some 150 species that had already been documented at the site and asked the group's help in adding to the list. He was not disappointed. Nicky compiled a list of 34 additional species spotted by our sharp-eyed amateur botanists.

Growing with the glade spurge spotted at the beginning of our walk were two familiar species: wild stonecrop (*Sedum ternatum*), foam-flower (*Tiarella cordifolia*) and several fern species. Butterfly watchers spotted the pipevine swallowtail near its host plant, Dutchman's pipe (*Aristolochia macrophylla*).

And then across Big Cedar Creek via a suspension bridge (known as a swinging bridge when I was growing up in Southwest Virginia because some troublemaker would enhance the bridge's natural tendency to swing and scare you half to death). Vehicles later made the trip on an underwater concrete bridge, which explained Doug's earlier concern about the suspension height of our vehicles. This creek is home to the Big Cedar Creek millipede (G1 S1), found nowhere else in the world. At lunch David would tell us about the Pinnacle's other rare animal, the hell-bender, a salamander that is usually

around 18 inches long but can grow to almost 30 inches. Near the creek we saw yellow pimpernel (*Taenidia integerrima*), big yellow wood sorrel (*Oxalis grandis*) and clustered snakeroot (*Sanicula gregaria*).

After a short climb up a stone stairway we walked along a wide trail

bordered by steep limestone outcroppings whose tops we couldn't see. Here, we saw walking fern (*Camptosorus rhizophyllus*) sprouting new plants as it spread into moist limestone crevices. We also spotted dwarf crested iris (*I. cristata*), more wild stonecrop and leatherflower (*Clematis viorna*) growing on the rocks.

At the base of the cliffs grew green and gold (*Chrysogonum virginianum*), sharp-lobed hepatica (*Hepatica acutilobia*), devil's bit (*Chamaelirium luteum*), green violet, (*Hybanthus concolor*), Miami-mist (*Phacelia purshii*), wild ginger (*Hexastalis arifolia*) and four-leaved milkweed (*Asclepias quadrifolia*). Along the way we saw several giant swallowtails near their host plant, northern prickly ash or toothache tree (*Zanthoxylum americanum*).

After this relatively easy walk and lunch at a picnic shelter we began huffing and puffing up Copper Ridge to the overlook and Canby's mountain-lover. We found several clumps of this six-to-eight-inch-tall small-leaved evergreen growing in limestone crevices; we were too late for its pinkish flowers borne in April. This plant has been in the nursery trade for years, and, despite its limestone origins and rarity in the wild, is easy to grow and adaptable to a variety of growing conditions.



Euphorbia purpurea
glade spurge
Illustration by
Nicky Staunton

On the way up Copper Ridge we saw fire pink (*Silene virginica*), large twayblade (*Liparias lilifolia*), purple-stemmed cliffbrake (*Pellaea atropurpurea*) and long-spurred violet (*Viola rostrata*). The overlook gave us a spectacular view of nearby mountains, valley farmland, and, hundreds of feet below, the Clinch River, famous for having the most globally rare freshwater mussel species in the U.S.

The Pinnacle's additional rare plants are: American harebell (*Campanula americana*) (G5 S1), beaked dodder (*Cuscuta rostrata*) (G4 S2), Carolina saxifrage (*S. caroliniana*) (G2 S2?) and prostrate blue violet (*V. walteri*) (G4G5 S2).

After coming back down Copper Ridge we followed a trail through northern white cedars to get our only look at the Pinnacle, the distant 600-foot-tall outcropping of dolomite that gives this preserve its name — a giant exclamation point at the end of a perfect day. David said he'd be happy to give us a closer look, but it would entail some serious rock climbing. Maybe next time.

For more information about the Pinnacle and Virginia's rare plants, visit the Division of Natural Heritage website at: www.dcr.state.va.us/dnh/index.html.

Nancy Arrington, PWWS Chapter

Virginia Native Plant Society -- Annual Meeting, October 2 & 3, 2004

"Natives in Varied Environments"

The Jefferson Chapter membership area encompasses regions of mountain and piedmont. The juxtaposition of these geological areas results in unusual plant communities. The citizens and governments of these jurisdictions are increasingly aware of the value of native plants and their uses. We are spotlighting not just natural areas, but local uses of natives in suburban gardens, commercial areas, urban parks and revitalized waste areas.

Weekend Schedule of Events

Saturday, October 2, 2004

Location: Monticello Holiday Inn, I-64—Charlottesville exit 120.

- 9:00-9:30 a.m. Registration and Coffee
 - 9:30-9:40 a.m. Greetings and Introductions
 - 9:40-10:45 a.m. Annual meeting—elections, reports, vision, awards.
 - 10:45-11 a.m. Break
 - 11 a.m. - Noon Speaker *Tom Dierauf* - *"Virginia's Changing Forests—Past, Present and Future"*
Retired Chief of Forest Research with the Virginia Department of Forestry, Tom received his Bachelors at Rutgers and his Masters in Forestry at Yale. He was with the Department of Forestry for 38 years, 33 of which were in research. He often lectures at Wintergreen.
 - Noon - 1 p.m. Lunch
 - 1:15-1:30 p.m. Rendezvous for field trips
- Dinner on your own.*

Sunday, October 3, 2004

Location: Ivy Creek Natural Area

- 9 a.m.-Noon Quarterly Board Meeting
 - 12:30 p.m. Rendezvous for field trips
- All meals this day are your responsibility.*

Accommodations: Monticello Holiday Inn is providing a special rate of \$89 per night. Reservations must be made by September 2 to reserve this rate. Mention discount code vnp.

Confirmation packet will include detailed directions to the meeting places for Saturday and Sunday, eating establishments, other hotels, local entertainment for Friday, Saturday, and Sunday and details for field trips (rendezvous place, Jefferson Chapter escort, car pool designations, etc.)

.....

VNPS Annual Meeting Registration Form October 2 & 3, 2004
Name _____ Signature** _____
Address _____

Member chapter _____ Phone _____ e-mail _____

Registration fee is \$49 for all participants and includes meeting facilities, light breakfast, "Southern Hospitality" buffet lunch, field trip refreshments and printed materials. No refunds after August 30. **Make checks payable to VNPS** and mail to: VNPS Annual Meeting, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620.

Field trip selections. Please list 3 choices in order of preference.

Saturday	Sunday
1st) _____	1st) _____
2nd) _____	2nd) _____
3rd) _____	3rd) _____

Do you want to car pool to the field trip? yes ____no____If yes, circle one: drive or ride?
Do you also want information/directions to the Garden for Peace? ____yes ____no

****Signature required on all registrations.** By signing this form the above registrant shall hold harmless the staff and volunteers of the Virginia Native Plant Society and those designated to serve as their providers

Annual Meeting Field Trips - Saturday

Fortune's Cove—(Lovingston, Nelson Co., 45 minutes SW of Charlottesville)—Nature Conservancy site donated by Jefferson Chapter member, Jane Heyward; 755 acres, 5.5 mile loop along ridge line; challenging 4-6 hour hike. Woodland and rocky glades part of 29,000 acres of unfragmented forest and convergence of Piedmont and Blue Ridge; contains rare plant communities and *Chionanthus* grove. Guide—Gay Frix. Open to the public year round.

Bear Garden—(New Canton, Buckingham Co., 45 minutes SE of Charlottesville)—(Limit 12)—Buschmann family natural area. VNPS registered site of 670 acres, formerly open farmland with 1.5 mile frontage along James River; woodland, riparian wetlands, river bluff habitats noted for 11 different species of native orchids, closed gentian, ladies tresses, and New England aster. The 1835 plantation house and 5 buildings dating to the late 1700s remain including a rock barn; 3-4 hour hike of rolling hills, stream crossings, and alluvial flood plains. Guide—Tom Dierauf.

Liquidamber—(Zion's Crossroads, Louisa Co., 30 minutes E of Charlottesville)—(Limit 10)—Shaw family natural area; 83 acres of mixed hardwood second growth forest selectively allowing natives to repopulate; beaver habitat; features plants that thrive on poor soil including liquidamber, steeples bush, mountain laurel, button bush, running cedar, standing cedar, beech drops, tea berry; 3 hour hike of relatively flat terrain with obstacles (fallen trees); trails are visible only to the owners. Guides—Will and Margaret Shaw.

Fernbrook—(Stony Point, Albemarle Co., 20 minutes N of Charlottesville)—Nature Conservancy site; typical southern Piedmont 100-year-old secondary growth forest; 63 acres with easy walking trails. Open to the public year round. Guide—Ruth Douglas.

Montpelier-James Madison Landmark Forest—(Orange, 50 min. N of Charlottesville)—200 acres of old growth forest in conservation easement. No documented logging history, trees are at maturity. The fertile Davidson soil supports tulip poplar, oak, ash, and beech among other natives. 1-2 hour hike of moderate difficulty. Tour fee of \$6 does not include tour of the mansion. Guide—Nancy Adamson.

White Hall Vineyards—(White Hall, Albemarle Co., 30 minutes NW of Charlottesville)—(Limit 15). Six acres of 100 percent U. S. native plantings at vineyard; design by Ian Robertson is restricted to trees, shrubs and climbers. Easy walk with gravel and grass wheelchair accessible paths; tour can also include the house garden and winery. 2.5 hours for all three tours. Guide—Ian Robertson.

Bird Hill—(Free Union, Albemarle Co., 25 minutes NW of Charlottesville)—(Limit 15)—10 acre home of Cole Burrell consisting of woodland, meadow, and terraced hillside. Complex mix of natives, cultivars, and exotics planted in contemplative circular spaces. Moderate difficulty includes steps and narrow trails. 1-2 hour tour guided by Cole Burrell.

Gaden/ Heyward—Member gardens—(Charlottesville)—(Limit 15)—Both are of flat terrain suitable for limited mobility participants. Jenny Gaden's five acres utilize extensive plantings of natives to attract winged friends—birds, bees, and butterflies. Foxhaven Farm is an arboretum created by Jane Heyward and her husband, a renowned architect, beginning in 1949, and contains a wide variety of native and non-native trees, collected from around the world, including a large number of hollies, magnolias, and other unusual trees. This property is also designated for donation to The Nature Conservancy.

Stokes/Boninti—Member gardens—(Ivy, Albemarle Co., 20 W of Charlottesville)—(Limit, 2 groups of 8)—Home of Phil Stokes, president JCVNPS, is in a subdivision planned around native flora. Suburban native showcase, Phil has spent 12 years installing natives as a model garden. His years of research and practice have made him the area expert on flowering native meadow establishment in suburban settings. The meadow peaks late summer and fall. Designed with gradually sloping paths of mowed fescue, the majority of his 1.4 acres is accessible to those of limited mobility. The alternating tour is at the home of Fran and Andrew Boninti. Famous for her spring ephemeral fantasy land, Fran's garden interests are year round with excellent educational opportunity for steep suburban hillside solutions. The 3-acre private garden is owner planted and maintained; intensely planted hillside can be viewed from easily accessible sites and front garden is flat. 2 hour combined tour.

Ivy Creek/Ken Lawless/ Bog Garden—(Charlottesville)—all wheelchair accessible—Tour the area surrounding the Ivy Creek Natural Area Education Building: Jefferson Chapter president, Phil Stokes, has been hacking away invasive aliens and replacing them with natives rescued from the bulldozers at Thompson Wildlife Area. A butterfly garden was recently installed as a JCVNPS project. Tour followed by slide presentation with Ken Lawless, whose botanical pursuits include nature photography and Wintergreen instruction. Ken will be showing slides from the CDs that he has produced and pictures destined for the "Flora of Virginia" project. Day ends with tour of Washington Park Bog Garden, a naturally occurring city park wet area that was cleared and planted (80 percent native) in cooperation with Charlottesville Parks and Recreation, Albemarle Garden Club, and Dominion Power; extensive plant labeling can be seen from the boardwalk. Natives are now self colonizing. 3 hours total. Garden guide—Margie Adamson.

Garden for Peace, Albermarle-Charlottesville Historical Society—(Charlottesville)— Designed and installed in 2003-2004. A pocket handkerchief garden in an urban setting with native plants interspersed with soft and subtle nonnatives transgressing the seasons from early spring to winter. A place for tranquility, peace and gentle contemplation. Gardens for Peace is an international organization established to help cities create small urban gardens for those in need of quiet reflection. Members of the organization will be on hand Saturday from 2-6 to explain the garden and to help anyone who would like to establish a similar garden. Open to the public. Can be visited anytime during the weekend in addition to other field trips.

Annual Meeting Field Trips - Sunday

Monticello—(Albemarle Co., 15 min. S of Charlottesville)—Special 2-3 hour tour guided by Fran Boninti in a non-public area. Jefferson's horse trail leading from the cemetery to the Rivanna River is a natural area noted for its pawpaw, wild ginger, and yellowroot stands. Steep hill. Only way back is uphill. Fee \$13. Discounts are being negotiated.

South Garage Pond—(Charlottesville)—(Limit 10)—Drainage pond for the new hospital employee garage was originally landscaped in the usual mundane plantings typical for waste areas. However, the hospital grounds crews have adopted it, relocating natives from other U.Va. holdings during their off hours, turning it into an oasis of natives amidst a sea of concrete and fescue. Steep embankments, intentionally unmanicured. Guide is head of grounds for the U.Va. Health System—Roger Conner.

Repeat trips—**Fernbrook, Fortune's Cove**-Guide is Nancy Adamson, **Bear Garden**-Guide is Phil Stokes. Limit 12.

Notes on field trips: Most sites have parking for only 2-4 cars. Please sign up for car pooling. Adequate parking is available only at Fortune's Cove, Montpelier, Ivy Creek, and Monticello. All guests must be listed, space and supplies will be limited. Water and other refreshments will be provided at all sites. Please limit children attendees to public gardens only: Ivy Creek, Fernbrook, Fortune's Cove, Montpelier. No pets at any of the sites. We ask that you turn off your cell phones during the field trips and use them only for medical emergencies. Most remote areas will not have cell phone coverage, therefore, if you have a health problem (bee venom allergies, asthma, etc.,) plan accordingly.

Mountain Getaway to Canaan Valley, West Virginia VNPS Fundraiser Drawing

\$15 tax-deductible donation for one ticket; \$40 donation for 3 tickets

Drawing held at the VNPS Spring Workshop in 2005

Spend up to four days in a two-bedroom house in Old Timberline in the picturesque mountains of Canaan Valley, West Virginia. Explore the adjacent Canaan Valley Wildlife Refuge and the nearby state parks of Blackwater Falls and Canaan Valley. Plan a cool getaway in the summer, revel in the fall colors, or try some downhill or cross country skiing just a few minutes away.

To enter, fill out one or three tickets (For additional tickets, make photocopies). Mail tickets and your tax-deductible donation to: **VNPS Mountain Getaway, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620.**

****Buy a chance to share a getaway with friends, use for a family reunion, or give as a reward to a good student!**

You may use this coupon below, or photocopy it the number of times you need.

Name _____
Address _____

Phone _____

Name _____
Address _____

Phone _____

Name _____
Address _____

Phone _____

•FOVP

(Continued from page 1)

munities we lose by clearing tracts of land? Not without trained botanists researching records of what is there by using historical field trip reports, going to Virginia's herbaria and studying GIS information. Today's botanists need to identify vegetation existing on the land. Sometimes plant species new to science are found. Remember, *"To keep every cog in the wheel is the first sign of intelligent tinkering."* –Aldo Leopold

The lack of a *Flora of Virginia* continues to this day to slow the work of a slim staff of field botanists in DCR-Division of Natural Heritage. Progress is being made with text and illustrations. Funding is the key to how soon Virginia students, natural resource managers, native plant field trippers, and gardeners will have a current *Flora* that will be explicitly inclusive of all of the plants within the borders of Virginia.

This volume will allow Virginia botanists to leave the various floras

of Maryland, West Virginia, North Carolina and Northeastern United States and Canada at home when they do field work. Line drawings by Lara Gastinger and fern line drawings by Roy Fuller will complement the text being prepared by Alan Weakley and Chris Ludwig. Alan Weakley is focusing on completing the section on Gymnosperms this summer. Ken Lawless is collecting color images of our Virginia plants that will appear as a supplemental resource on the website. Virginia Botanical Associates (*The Atlas of Virginia Flora*) and Flora of Virginia Project (FOVP) have joined in a cooperative agreement for use of data in the atlas.

Some other news from the FOVP Board is that Nancy Hugo and Ann Regn have been welcomed as new board members. Joslin Gallatin, Development Director, has submitted grant applications. Marion Lobstein and Ann Regn have prepared a report on the influence of the *Flora* in scientific education.

An elegant gala to benefit Virginia's Flora Project is being planned for November 20 at Meadowlark Park in Vienna, Virginia. Keith Tomlinson, Meadowlark Manager, offered to assist the FOVP fund raising by hosting this event. With music in the background, the evening will include a silent auction held while refreshments are enjoyed.

Each donation you have made to the Flora of Virginia Project is appreciated and has moved the project to this level of completion. VNPS members are invited to continue generous donations of money and/or securities. A contemporary *Flora of Virginia* is essential to Virginians and our Commonwealth. Publishing the *Flora* earlier than 2010 is possible with funding.

Donations payable to **Foundation of the Flora of Virginia** may be mailed to Christopher J. Ludwig, Foundation of the Flora of Virginia Project, Box 512, Richmond VA 23218-0512.

Nicky Staunton, Flora of Virginia Project

• *Ailanthus*

(Continued from page 3)

turbed areas, they become a menace. As long as they are in the sun they germinate freely in even the poorest soil, quickly send down a taproot, and grow rapidly, out-competing slower growing species. They also reproduce by root sprouts, forming dense thickets.

Tree of heaven is tough because it grows in any soil, is both flood and drought tolerant, and is allelopathic, meaning it produces a toxin which suppresses nearby plants and trees. The Nature Conservancy reports one study that found that "allelopathic effects on over 35 species of hardwoods and 34 species of conifers have been demonstrated for water extracts of ailanthus leaves.... Only white ash (*Fraxinus americana*) was not adversely affected." As a result, according to Dylan Jenkins, a forester at Virginia Tech, it has been displacing "thousands of acres of native vegetation and offering little or no economic or wildlife benefits in return."

Natural resource managers throughout Virginia are trying to control *Ailanthus*. It has been in Shenandoah National Park since the turn of the century, according to James Akerson, team leader of the Mid-Atlantic Cooperative Invasive Plant Management Team for the National Park Service. Back in the 1930s, workers in the Civilian Conservation Corps attacked *Ailanthus*. But it persists. According to Akerson, the largest infestations of tree of heaven are not along Skyline Drive, but on the state roadsides which bisect the park, state highways 211 and 33. He uses a combination of volunteers and maintenance staff to control the *Ailanthus*.

While a dense canopy keeps *Ailanthus altissima* from taking over large natural areas, when Hurricane Isabel blew down trees in Shenandoah National Park, *Ailanthus* sprouted up heavily in the sunny spaces that resulted. Similarly, a study in New York found that *Ailanthus* saplings dominated several natural tree-fall gaps in two small patches of old-growth hemlock forest. There the growth of the tallest *Ailanthus* saplings was significantly greater than their tallest native competitors.

In Virginia state parks, *Ailanthus* threatens native flora. Paul Billings, Dis-

trict II resource specialist in the Division of State Parks, calls it "horrible." As state land managers, he says they are doing their best to eradicate it.

The land managers have been successful in eliminating it in some areas, such as Sky Meadows State Park in Clarke and Fauquier counties. Billings has been working to control *Ailanthus* at Westmoreland State Park in Westmoreland County, the Caledon Natural Area in King George County, Lake Anna State Park in Spotsylvania County, Mason Neck State Park in Fairfax County and other natural areas over the past seven years. At Mason Neck, *Ailanthus* has been a problem in open field areas and he has been able to kill those that are easily accessible.

Doing so requires a concerted effort because *Ailanthus* is difficult to kill. At the end of the book, the tree growing in Francie's yard in Brooklyn was chopped down and its stump was burned, but she found it growing back with true urban toughness. She described what happens when *Ailanthus* is merely chopped down; it springs back from the roots the following year and will be several feet tall at the end of the growing season. And unless it is one small tree or a small group of trees, it is nearly impossible to eradicate just by digging and chopping, as every bit of root must be taken out. Therefore, the methods used by departments of transportation, natural resource managers, farmers and landowners almost always involve chemicals.

Those methods vary, but usually include either foliar or bark spraying with an herbicide or "hacking" and then "squirting" the bark and stump with the herbicide. The chemicals with the least environmental effects are those systemic herbicides containing glyphosate for foliar spraying or trichlopyr for spraying the bark or stumps. The most extensive description of the various methodologies for control is detailed on the fact sheet on *Ailanthus altissima* posted on the Alien Plant Work Group website: <http://www.nps.gov/plants/alien/fact/aial1.htm>

Dylan Jenkins of the Virginia Tech Department of Forestry, in an article for the Virginia Forest Landowner Up-



date, suggests the use of trichlopyr or imazapyr to control tree of heaven. He reports that Dr. Shep Zedaker of Virginia Tech found that "basal applications of the oil-based herbicides Garlon 4 and Stalker applied to the lower 12 to 18 inches around all sides of each stem resulted in 100 percent mortality of *ailanthus* one year after application." However, oil based mixtures are longer lasting in the surrounding environment; therefore, it is important to follow label directions and use the least amount that will be effective. (Details of his findings can be found at: <http://www.fw.vt.edu/forestupdate/Articles/bigstink.htm>)

At Shenandoah National Park, the staff uses basal applications of Garlon 4 with oil. Paul Billings uses the "hack and squirt" method in Virginia parks, using a hatchet to girdle the tree and spraying immediately with Garlon.

We can hold out hope for an alternative to chemicals with a biological control that will be effective without any environmental consequences. Dr. Jay Stipes, who is professor emeritus of plant pathology at Virginia Tech, has identified a fungus pathogen (*Fusarium oxysporum*) that could be effective against *Ailanthus*. Our last edition of the *Bulletin* requested VNPS members to be on the lookout for *Ailanthus altissima* which appears to be dying (yellowing or flagging leaves). Report them to Dr. Stipes at treedr@vt.edu or 540-231-7479.

In the meantime, the best lesson we can learn from our struggles with the notorious *Ailanthus*, is to be extremely careful with those exotic plants which we import to satisfy our desire for unusual landscape specimens. They can plague us for centuries.

Mary Ann Lawler with assistance
from Dr. Stan Shetler

VNPS seed gatherers begin work for the future

Our VNPS mission is to conserve native plants where they occur naturally within a community of flora and fauna, *in situ*. Habitat protection remains our prime goal.

Two seed bank programs have been formed to protect plants *ex situ* because of increasing threats to plants *in situ*. In 2000, the Kew Royal Botanical Garden formed "Millennium Seed Bank Project," a worldwide project that will end in 2010. In America, the program is called "Seeds of Success" (SoS). Michael Way, America's Coordinator and Clare Tenner, International Programme Officer, came to Howardsville, Virginia, on July 9 to meet with VNPS volunteers to teach the protocols for participating in SoS.

The Center for Plant Conservation at the Missouri Botanical Garden focuses on seed collection and research to conserve plants *in situ* and by *ex situ* storage of native rare plants with university and arboreta partners.

In Virginia only common herbaceous dry seed flora will be collected for storage. Portions of stored seeds may be used by partners for restoration following fires, for prairie restoration and restoration fol-

lowing invasive alien plant destruction. Virginia has no restoration plans. Targeted plants will not be rare and must come from one colony. Seeds will be recorded, tested, researched and stored cryogenically at Kew MSBP center. Already collected from Howardsville by John Hayden is *Scirpus atrovirens*.

Ten VNPS members are setting target lists of native plants. Requirements: target a plant community of 50; landowner's permission to collect the quantity of seed necessary and four plants for herbarium specimens (Kew, Smithsonian, BLM and a Virginia herbarium). Once the target list is submitted, it will be cross-referenced with the Bureau of Land Management database of collected species to avoid duplication. After approval, collection begins.

Kew partnerships have grown to include: U.S. Plant Conservation Alliance, U.S. Department of Interior, Bureau of Land Management, Chicago Botanic Garden, and Lady Bird Johnson Wildflower Center. Considering partnership are: North Carolina Botanical Garden, New England Wild Flower Society, New York City and Adkins Arbore-

tum. VNPS is a pilot program for native plant society volunteers.

Instruction will be in identifying plants and their seed; in phenology of the plant; in testing for seed viability; in handling collected seeds; and in shipping seed and herbarium specimens. A one-day workshop for participants is being planned for spring to assess the Virginia program.

VNPS gatherers are Sally Anderson, Ramona Morris (Piedmont), Lara Gastinger, Nancy Adamson, Ellora Young (Jefferson), Peggy Dyson-Cobb (Upper James River), Nicky Staunton (Prince William), and John Hayden (Pocahontas). We are grateful to John and Nancy Hugo for use of Higher Ground; Erin Armstrong, catering; John Hayden, field botany; and to Michael Way and Clare Tenner for coming to Virginia to train us. This happened because VNPS 1st VP Michael A. Sawyer, currently living in The Netherlands, introduced the SoS program to VNPS. To learn more contact Nicky Staunton (703-368-9803 or nstaunton@earthlink.net) or www.kew.org/msbp.

Nicky Staunton, VNPS Seed Gatherer

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*Please designate one person as delegate for Associate membership

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Make check payable to VNPS and mail to:

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Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

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The deadline for the next issue is October 1.

Get to know state's newly proposed wilderness, scenic areas

Virginia Ridge and Valley Wilderness and National Scenic Areas Act of 2004 - S. 2342/H.R. 4202

The Virginia Ridge and Valley Wilderness and National Scenic Areas Act of 2004, legislation supported by VNPS, will protect nearly 29,000 acres of the Jefferson National Forest in southwestern Virginia as wilderness. Each of the new Wilderness and National Scenic Area designations has been endorsed by either the U.S. Forest Service or the board of supervisors of the county in which the area is located. The act will also create two new National Scenic Areas and protect almost 12,000 acres of Virginia national forests.

Wilderness designation protects habitat for wild animals and plants. Recreational activities such as hunting, fishing, camping, canoeing, kayaking, swimming, picnicking, backpacking, bird watching, horseback riding, cross-country skiing, snowshoeing, spelunking, rock-climbing and many other outdoor activities are encouraged in the new areas. The proposed areas are:

1. Stone Mountain (Cave Springs) - The Stone Mountain proposed wilderness area is a 3,200-acre tract of land adjacent to the North Fork of the Powell River in Lee County. The property is the

least disturbed forest in all of Southwest Virginia and is home for two rare salamanders. The Stone Mountain and Payne Branch trails are included as part of the proposed wilderness area and provide convenient access for hikers and hunters. The trails connect to an adjacent campground at Cave Springs.

2. Raccoon Branch - The Raccoon Branch proposed wilderness area is located in Smyth County in the Mount Rogers National Recreation Area. The property contains 4,400 acres of extremely rugged country characterized by high ridges and low streams. Eight major trails provide excellent access for hunters, fishermen, hikers and horseback riders and two nearby campgrounds serve as convenient trailheads. In addition, 4.5 miles of the Appalachian Trail also traverse the area.

3. Brush Mountain - The Brush Mountain proposed wilderness area is located in Montgomery County, adjacent to the Town of Blacksburg and Virginia Tech. The area is 4,700 acres in size and extends approximately eight miles along the northwest slope of Brush Mountain. The property is characterized by its remoteness, despite its proximity to the suburbs of Blacksburg.

4. Brush Mountain East - The Brush

Mountain East proposed wilderness area is adjacent to the Brush Mountain proposed wilderness area and is located in Craig County. This tract is 3,800 acres in size and shares many of the characteristics of its neighboring proposed wilderness area. Brush Mountain East also possesses excellent views along Craig Creek and Brush Mountain's steep mountain face and is near the Audie Murphy Monument lookout near the top of the ridge.

5. Crawfish Valley - The Crawfish Valley proposed National Scenic Area is located in Smyth County and includes 5,400 acres. The area extends from the crest of Walker Mountain southward to the crest of Brushy Mountain and includes the enclosed valley between the two mountains. An extensive network of trails is included in the proposed area.

6. Seng Mountain - The Seng Mountain proposed scenic area is 6,400 acres and is located in the Mount Rogers National Recreation Area in Smyth County. Rowland Creek Falls, a 45-foot waterfall is a major scenic attraction in the area. The area also includes a network of recreational trails and convenient access is provided to visitors via the Hurricane Campground and Skulls Gap Picnic Area.

Information from Va. Conservation Network

www.vnps.org

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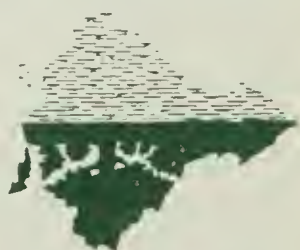
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Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

www.vnps.org

VNPS to sponsor rare Virginia plant

The VNPS Board of Directors has unanimously decided that members should have the opportunity to share in saving a state and globally endangered plant through their donations to the 2004 Annual Funds Appeal. Members and friends are invited to support sponsorship of *Harperella* (*Ptilimnium nodosum*) with gifts to the appeal. The sponsorship program was set up by the Center for Plant Conservation (CPC), which has 600 plants in its National Collection of Endangered Plants.

The plant chosen for sponsorship, *Harperella*, was found in our

state by Allen Belden of the Virginia Department of Conservation and Recreation's Division of Natural Heritage (VNPS *Bulletin*, April 2003). The search for this plant species had



been long-term, based on its presence in several surrounding states, where it is also listed as endangered. The plant is a member of the Apiaceae or Carrot Family, and grows on gravel shoals in clear, fast-flowing creeks and rivers.

Many VNPS members responded to a long range planning survey in 2000 with a desire for our society to partner with other non-profit organizations that share similar conservation goals to help our native plants. The Center for Plant Conservation meets that description. Located at the

(See Sponsorship, page 2)

New format, Jefferson Chapter hospitality prove delightful

VNPS members converged on Charlottesville for the 23rd VNPS State Annual Meeting October 2-3. The hosting Jefferson Chapter offered a new format concentrating events on Saturday morning and afternoon. This scheduling that enabled many to attend without overnighting was well received by the membership. Still, to accommodate members desiring Sunday activities, a second afternoon of field trips was offered. Of the 74 registered attendees, approximately half elected to stay for the Sunday field trip offerings.

As members arrived for the meeting's opening, they were greeted by a hive of activity centered on the table displays featuring numerous

projects that VNPS supports. Also generating interest were vendor tables of talented locals including two authors, an artist, and a native plants nurseryman. Each contributed a percentage of his or her sales to help defray meeting costs.

After the opening remarks and business meeting formalities, the keynote speaker Tom Dierauf gave his engaging presentation "Virginia's Changing Forests—Past, Present and Future." Having worked 33 years in research with the Virginia Department of Forestry with the last 25 years as chief of research, Tom was able to provide enlightened insight into influences changing our forests. His talk touched on the remarkable in-

formation about past species that could be learned from examining pollen layers found in bog deposits. Fascinating as well was the significant alteration the flora has experienced as a result of Native American management practices, particularly the use of fire. Troublesome to the land were early settlers' poor agriculture techniques that were vividly portrayed in Tom's slides. Vintage photos of early logging activities gave us a sense of wonderment at the gigantic size of species initially harvested. Devastating were the effects of fire and erosion that followed early timber cuts. Although there has been promising

(See Annual Meeting, page 4)

From the president

Volunteers make our society grow stronger

Dear VNPS members,

Another Annual Meeting – the society's 23rd – has come and gone. I'd like to begin this letter by thanking the Jefferson Chapter, and Phil Stokes and Ellora Young in particular, for doing such a good job with this event. Read more about the event in this newsletter, and please consider attending next year if you missed the meeting this year.

I'd like to welcome our new chapter presidents to their positions: Linda Chaney (FAC), Brenda Huff (SHR), Cindy Burks (BRWS) and Judy Lang (NN). The chapter presidents work very hard to keep VNPS moving ahead. I'd also like to recognize the candidates we elected to state board positions this fall: Mary Jane Huneycutt (PD), Mary Ann Lawler (PT), Leo Stoltz (PWWS) and Rod Simmons (PT). Rejoining the board after a year off is Stan Shetler (PT), and beginning a second term are Ruth Douglas (JF) and Johnny Townsend (AL). Thank you all.

I've had a busy week, with a Piedmont Chapter booth at Blandy Farm's Arborfest, a walk at Abram's Creek Wetland Preserve in my home town of Winchester, and a talk to the Master Gardeners in Goochland and Powhatan Counties. I find I really enjoy showing and telling people about our native plants. It's nice to have the support of so many of you to help educate me about our state and to support such talks and events. At the end of February, we will have a booth at the Maymont Flower and Garden Show that will need tending for four days. Many of you are knowledgeable and also like to share your enthusiasm. I hope you will offer to work a shift there. It's a large event with the potential to reach many new people. Look for the announcement in this Bulletin and see if you can help us.

I hope you have enjoyed fall and the beautiful colors it brings as much as I have. It's a lovely season to be in the woods.

Your president,
Sally Anderson

•Sponsorship

(Continued from page 1)

Missouri Botanical Garden, it was organized in 1984 with the mission "to conserve and restore the rare native plants of the United States." The CPC website, www.centerforplantconservation.org, has thorough information about its mission, the National Collection of Endangered Plants, the consortium of research institutions with which it works, and more.

Jocelyn Sladen, Piedmont Chapter member and a trustee on the CPC board, arranged a meeting with Kathryn Kennedy, CPC president and executive director, which was very helpful in the selection of the Virginia native plants we considered for sponsorship. A short list of our selections was reviewed by Johnny Randall of the North Carolina Botanical Garden. The plant that received his ranking of "first priority" was *Harperella*, noted as being "in the worst shape of any on the list."

Our fundraising appeal letter will reach you at about the time you receive this newsletter. The appeal will contain a brochure about the Center for Plant Conservation and what it means to sponsor an endangered plant. Sponsorship of each plant is a one-time cost of \$10,000 and this is our fundraising goal. Interest from the sponsorship funds will be used by a network of researchers, with the ultimate goal of learning how to protect and restore the plant.

Your generous gifts during last year's appeal raised \$8,000 for the society. Those donations along with gifts from several chapters helped accomplish a high degree of financial stability for VNPS, and will enable us to use the gifts this year for the sponsorship of *Harperella*.

Sally Anderson, VNPS President
And VNPS Board of Directors

New VNPS board member

New VNPS board member Leo Stoltz has a bachelor's degree in education from the University of Kansas and a master's in economics/education from the College of St. Thomas. He is currently the manager of collective bargaining services for the Federal Aviation Administration and recently retired from the U.S. Navy Reserve with the rank of commander. His interests in gardening are varied, but he enjoys his formal herb garden, vegetable gardening and using native plants in natural woodland settings. He has been a member of the Prince William Wildflower Society for about eight years, is past vice-president of that chapter and current publicity chair. He is particularly interested in conservation and preservation of undisturbed natural areas throughout the state and in legislation which may impact that interest. Welcome aboard Leo!

New version is online of Natural Communities of Va.

The Virginia Natural Heritage Program is pleased to announce that the Second Approximation (Version 2.0) of The Natural Communities of Virginia: Classification of Ecological Community Groups is now on line at the VANHP web site: <http://www.dcr.virginia.gov/dnh/nchome.htm>.

Based on intensive field and analytical work over the past four years, the Second Approximation is a refined, expanded, and fully illustrated update to the First Approximation that was released in January 2001. The site contains a wealth of information about Virginia's landscape ecology, plant communities, and individual plant species.

Although a hard-copy version of the Second Approximation is also planned, basing this project on the web will allow it to be easily and continuously updated. Comments and feedback are welcome.

Gary P. Gleming, Vegetation Ecologist-DCRDNH

Highlands offer botanizing bonanza

(This article is the second in a two-part series about a VNPS trip to Southwest Virginia)

On Sunday, the second day of our May trip to Southwest Virginia, Douglas Ogle (retired from Virginia Highlands Community College and contributor to the *Atlas of the Virginia Flora*) treated our group to a walking and driving tour of Whitetop Mountain in Smyth County. Whitetop, at 5,520 feet, is Virginia's second highest elevation; Mount Rogers at 5,719 feet is number one. Both are in the Mount Rogers National Recreation Area. According to one guidebook, our trip to the top would take us through four forest types: deciduous hardwood, northern hardwood, subalpine beech and northern red spruce. Along the way we stopped at several of Doug's favorite botanizing spots.

Always, in addition to botanical gems, we were treated to Doug's informative and entertaining stories about the area. His account of a two-day Whitetop music festival in August 1933 was especially interesting to me since some of my relatives were among the 28,000 who attended. They had come to hear the music and to see Eleanor Roosevelt. The first lady came, after spending the night at Abingdon's elegant Martha Washington Inn, because she loved the mountain music and supported efforts to maintain Appalachian mountain heritage.

Just as we did at the Pinnacle, we saw many unfamiliar plants. In fact, Doug told us we'd need a copy of *Wildflowers of Kentucky* by Wharton and Barbour, or Justice and Bell's *Wildflowers of North Carolina* for a description of many of the plants. On one of our first stops we saw mountain Indian plantain (*Cacalia muhlenbergii*), Canada mayflower (*Melanthium canadense*), bluebead lily (*Clintonia borealis*), northern white violet (*Viola pallens*), and carpets of little leaf bluets (*Houstonia serpyllifolia*).

At several stops we saw long-stalked holly (*Ilex collina*) (G3 S2 and state LE [listed endangered]). Other shrubs included red-berried elder (*Sambucus pubens*), moosewood (*Viburnum alnifolium*), highbush blueberry (*Vaccinium corymbosa*) and pagoda dogwood (*Cornus alternifolia*).

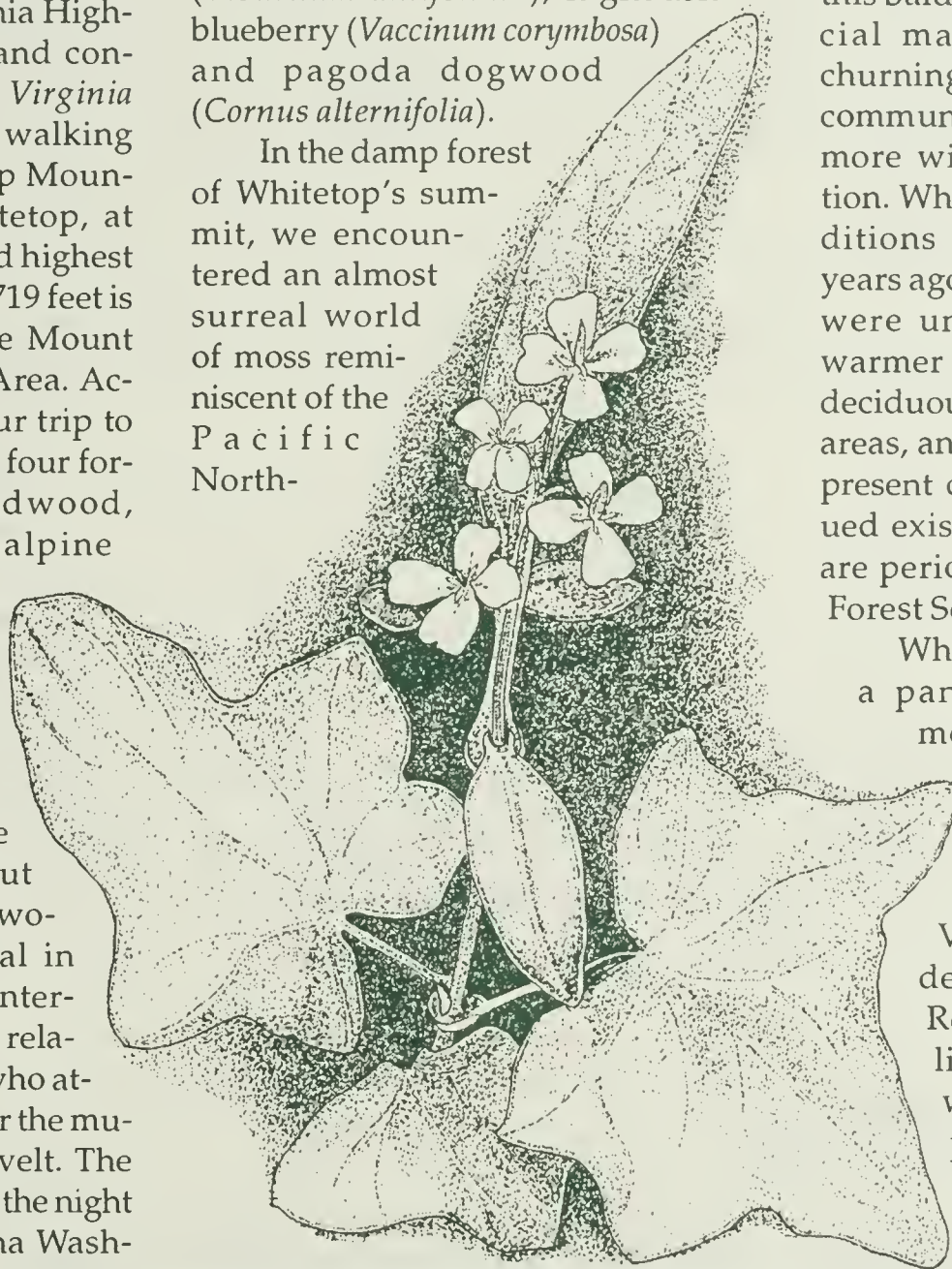
In the damp forest of Whitetop's summit, we encountered an almost surreal world of moss reminiscent of the Pacific North-

by domination of grasses, sedges, and ferns – in other words a "treeless" community. According to Leonard M. Adkins in *50 Hikes in Southern Virginia*, ecologists think this bald was formed during the glacial maximum, by freeze-thaw churning of the soil, and the plant community is a "fossil," or relict of a more widespread former distribution. When hot and dry climatic conditions occurred a few thousand years ago, many evergreens died and were unable to reestablish. This warmer and drier climate permitted deciduous trees to invade the grassy areas, and this trend continues to the present day. To insure their continued existence, Doug said the balds are periodically burned by the U.S. Forest Service.

When the clouds lifted we had a panoramic view of distant mountains including Mount Rogers, Wilburn's Ridge in Grayson Highlands State Park, and Stone Mountain on the Tennessee-Virginia-North Carolina border. We could see Buzzard's Rock, formed from 400-million-year-old lava and now a well-known spot on the Appalachian Trail. Doug took us along a short, mountainous trail for a close look at minnie-bush (*Menziesia pilosa*) and high-bush cranberry (*Vaccinium erythrocarpum*), rhododendron relatives growing out of rock crevices.

We saw the rare three-toothed cinquefoil (*Potentilla tridentata*), and looked for the very rare moonwort (*Botrychium simplex*) that Doug said grows on the road bank. Instead Nicky Staunton spotted the related moonwort, *B. matricariaefolium*.

Our day ended with a walk along the Appalachian Trail northeast from Whitetop down to Elk Garden Gap. The *A.T. Guide to Southwest* (See *Virginia's Highlands*, page 6)



Appalachian bittercress *Cardamine clematitis*
Illustration by Nicky Staunton

west or a Japanese moss garden. Moss covered everything – the ground, small stones, large boulders, fallen tree trunks. Plants growing here included troutlily (*Erythronium americanum*), wake robin (*Trillium erectum*), northern or mountain wood sorrel (*Oxalis montana*), northern club moss (*Lycopodium clavatum*) and old man's beard lichen.

An open, treeless area below the summit is a natural mountain bald for which Whitetop is named. A bald is a plant community characterized

Flora of Virginia Project Report: Autumn highlights

Preparation of the text for our first *Flora of Virginia* since 1762 is accelerating. About 400 plant descriptions have been drafted at their first level of preparation, that of researching existing descriptions about our Virginia native plant species in other flora publications.

At the same time, the second level of reviewing each description against existing herbarium specimens for our *Flora of Virginia* has begun. This is meticulous and time-consuming work and will require much effort.

Funding for the *Flora of Virginia* is particularly important now that this work has begun and additional staff would be helpful. Gifts from VNPS members have been generous and essential to beginning this work, but more funds will expedite the preparation.

The goal for the *Flora of Virginia* Project is to have fresh, new illustrations of every plant in Virginia. Lara Gastinger has completed approximately 400 of the 4,000 plant illustrations needed for the new *Flora*.

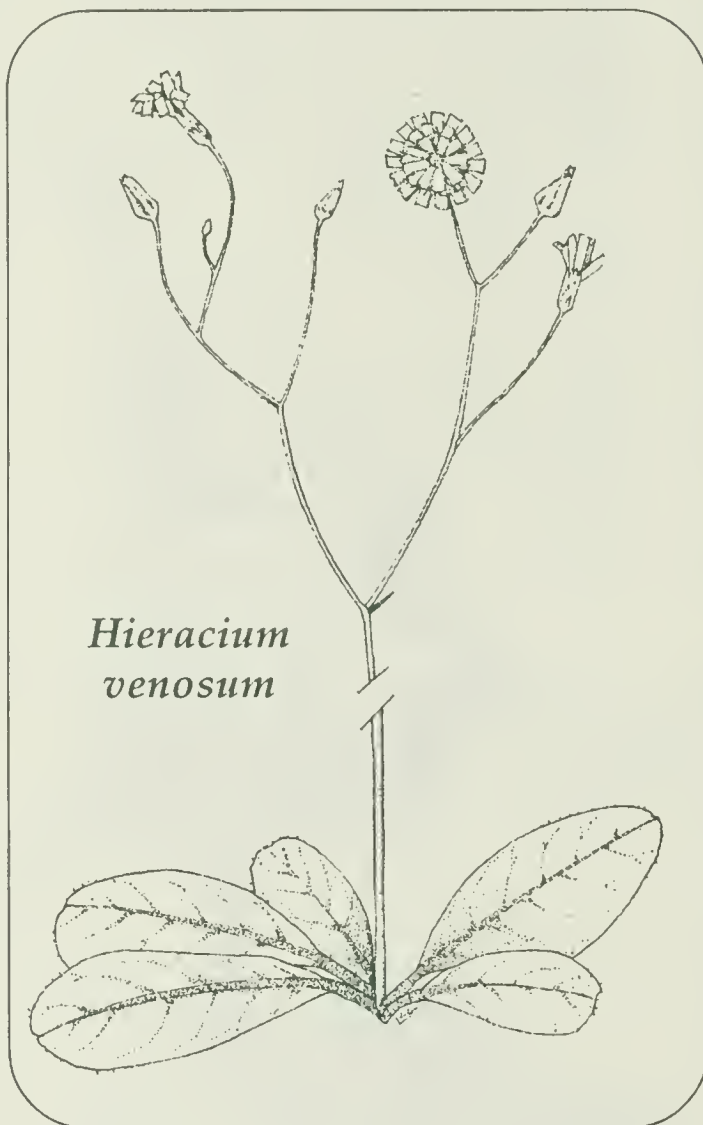
The process of preparing an illustration involves using fresh specimens of the plant or in some cases, herbarium specimens. Although the fresh specimens are preferred, obtaining them is

not always an easy job. Some plants are located in remote and difficult places to access, while some others are rare and therefore not collected, even when found. There is the challenge of getting the specimen plants to Lara's studio in a state of freshness that retains the architecture, texture and features of the plant.

One of Lara's pen and ink botanical drawings illustrates this article. Lara's undergraduate degree is in biology from the University of Virginia and she received a master's degree in plant ecology from Virginia Tech. Lara studied art at the Rhode Island School of Design and Cornell University.

Your monetary gifts continue to be consistently important for this historical botanical volume that will be a conservation and educational tool for all Virginians. We can most effectively appreciate and protect our natural world by learning about our plants and recognizing their habitats. To protect wildflowers and wild places, a *Flora of Virginia* is essential.

Nicky Staunton
Flora of Virginia Project



• Annual Meeting

(Continued from page 1)

regrowth, introduced pests and invasive plants have an ever-increasing influence on the landscape. Tom's charts revealed alarming climatic changes in temperature and CO₂ levels that raise other concerns about problems that our forests and planet face.

After lunch, members embarked on their choice from the eight different field trips offered. Besides the usual fare of natural areas, field trip options included a few of our member's private gardens with an emphasis on natives. Overwhelmingly, field trips in natural areas were the most heavily attended. Mentioned as memorable from Fortune's Cove was finding ginseng; Bear Garden offered an unforget-

table tractor-drawn ride to find colorful New England aster, bottle gentian, and ladies tresses; Liquidamber featured a showy stand of berry-laden wintergreen and the unique pinesap; Montpelier delighted visitors with an overwhelming paw paw grove; Monticello impressed members with monkshood and an awesome yet foreboding cathedral of akebia growth.

In summary, Jefferson Chapter's goal was to make your annual meeting stay an informative and pleasurable experience. The weekend provided a wonderful opportunity to visit with old friends and meet new ones. The chapter appreciates the response from those who attended.

Phil Stokes, Jefferson Chapter President

Volunteers needed for Maymont Show

Native plant lovers are needed to staff the VNPS booth at the Maymont Flower and Garden Show to be held in Richmond February 24-27. To sign up for a shift (about three hours) or for more information, contact Daune Poklis (804-741-7838 or daune@poklis.org).

Volunteers will receive a free pass to the show and free shuttle service from the remote parking at The Diamond.

For more information on the Maymont Flower and Garden Show see <http://www.maymont.org/events/annual.asp>.

Mountain Getaway to Canaan Valley, West Virginia

VNPS Fundraiser Drawing

\$15 tax-deductible donation for one ticket; \$40 donation for 3 tickets

Drawing held at the VNPS Annual Workshop in Richmond

Saturday, February 26, 2005

Spend up to four days in a two-bedroom house in Old Timberline in the picturesque mountains of Canaan Valley, West Virginia. Explore the adjacent Canaan Valley Wildlife Refuge and the nearby state parks of Blackwater Falls and Canaan Valley. Plan a cool getaway in the summer, revel in the fall colors, or try some downhill or cross country skiing just a few minutes away.

To enter, fill out one or three tickets (For additional tickets, make photocopies). Mail tickets and your tax-deductible donation to: VNPS Mountain Getaway, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620.

***Buy a chance to share a getaway with friends, use for a family reunion, or give as a reward to a good student!*

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VNPS 2005 Botanical Trip to Canada's Bruce Peninsula

June 13 through June 18, 2005

Co-leaders for field trips: Dr. Stanwyn Shetler, Elaine Shetler, and Nicky Staunton

The trip co-leaders are happy to invite you to join them on Ontario's Bruce Peninsula that features the Niagara Escarpment. This geographical and geological gem is bordered on the east by the Georgian Bay and on the west by Lake Huron. Participants arrive Sunday, June 13 at Wildwood Lodge on the shore of Lake Huron for dinner and slide show revealing the uniqueness of this United Nations-designated Biosphere. There will be five days of field trips to visit bogs, fens, and Flowerpot Island, all featuring ferns, orchids and many plant species of northern forests, wetlands and shores. Alvar habitats and plants are unique to this region where the rare lakeside daisy (*Hymenoxys herbacea*) is located and we will visit them all. The Bruce Peninsula is known for abundant yellow ladyslippers (*Cypripedium calceolus* var. *parviflorum*) which, when blooming in the roadside ditches, seem as plentiful as our dandelions. If the weather cooperates, we hope to see *Cypripedium reginae* in bloom. We leave Satur-

day, June 18 after breakfast with a bag lunch for the trip home.

The fee for the full trip's lodging in rustic cabins on Lake Huron, all meals and ferry and park fees will be \$650. Travel costs to and from the Bruce are not included for the two-day drive from Virginia. However, we do carpool for the week. Participants will receive in advance a plant list, travel directions and information about the week.

The Shetlers and Nicky Staunton returned to the Bruce Peninsula in 2004 with the Botanical Society of America Northeast Region and are eager to share again the Bruce's flora, fauna (some birdwatching before breakfast several times) and beautiful landscapes. Most walks are easy (this is not a hiking trip) and there is time for photography and one afternoon to spend as you choose.

To reserve space or obtain more information, please contact immediately Nicky Staunton, VNPS second vice president at nstaunton@earthlink.net or 703-368-9803. Information is also available at www.vnps.org.

Environmental ethics includes balancing the patches

At a recent seminar, the speaker described the role of elephants in maintaining heterogeneity in the South African landscape. Some plants and animals are dependent on the mosaic of openings the elephants produce, and without those disturbed patches, some species would disappear. Substitute fire, beavers, or the long-vanished buffalo and elk for the elephants in this story and you have one familiar from the North Carolina landscape: some species are dependent on periodic disturbance to what would otherwise be a heavily forested landscape. Think of the medicinal and beautiful plant *Echinacea*, threatened on disappearing Piedmont prairies.

A thoughtful staff member asked an important question: If elephants are part of the "natural," why not people, too? When I was a student,

In other words, from a biodiversity and conservation point of view, the "right" and "wrong" does not apply strictly to the single patch but rather is the result of the sum of patches at a larger scale.

and in my early years as a conservationist, I viewed human-free nature as the only ideal; people were certainly *not* natural. I now see a spectrum that grades from deepest human-free nature to human-dominated places. I believe that every point along this spectrum can play a role in conservation and environmental quality and that, for the good of our own species and others, we

should work across the entire spectrum. Gardening is the very activity that creates the interface between people and the nature of which they are, and always have been, a part.

But back to the elephants. It turns out the issue is not whether elephants are "natural" but *how many* elephants there are. The speaker went on to suggest that local managers had

(See *Patch-dynamic*, page 7)

• Virginia's Highlands

(Continued from page 3)

Virginia says simply "enter woods," adequate for most hikers, but for wildflower lovers it meant entering a botanically lush area of one treasure after another. Our "who's who of moist woods" included rose twisted stalk (*Streptopus roseus*), fairy bells (*Disporum lanuginosum*), early meadowrue (*Thalictrum dioicum*), yellow violet (*Viola hastata*), false hellebore (*Veratrum viride*), monkshood (*Aconitum reclinatum*), white baneberry (*Actaea pachypoda*), and umbrella leaf (*Diphyllia cymosa*). Someone spotted lily foliage and asked Doug which one it was. "Could be turk's cap or Gray's or Canada; we have all three here," was his casual reply.

Indian cucumber root (*Medeola virginiana*), bluebead lily (*Clintonia borealis*), and blue cohosh (*Caulophyllum thalictroides*) reminded us that American Indians and early European settlers had probably roamed these woods in search of food and medicine. We had a taste of the

garlicky ramps (*Allium tricoccum*), highly anticipated after long winters without fresh vegetables, and today sought out each spring as part of the local ramp festival.

Though the lovely yellow-flowered clintonia had become an almost ho-hum plant, we saw only a single white one, (*C. umbellatum*). Carolina spring beauty (*Claytonia caroliniana*) was spotted along with mountain bittercress (*Cardamine clematitis*) (G2G3 S1S2) and fringed scorpion weed (*Phacelia fimbriata*) (G4 S2).

Naturally, this moist, shady area was loaded with ferns. In addition to several common species we identified mountain shield fern (*Dryopteris campyloptera*) and Southern lady fern (*Athyrium asplenoides*). We saw many sedges including *Carex intumescens*, which grows throughout Virginia, and the uncommon evergreen Fraser's sedge (*Cymophyllus fraseri*). Often we came across ferns and other plants forming charming associations in rock crevices. One of these memorable natural rock gardens in-

cluded a colony of tiny jacks-in-the-pulpit growing with equally tiny asters in a shallow depression in a large boulder.

At one spot where a mountain spring trickled down into a small marshy area we saw mountain saxifrage (*Boykinia aconitifolia*) and showy purple-flowered waterleaf, (*Hydrophylla canadensis*) along with the white-flowered form, *H. virginianum*. Mountain or lettuce-leaved saxifrage (*Saxifraga micranthidifolia*) also grew in this area.

Our drive back to Abingdon took us through Damascus, a tiny town that calls itself the "friendliest town on the Appalachian Trail," and, according to local residents, has the best ice cream for miles around. Hikers receive an especially warm welcome during "Appalachian Trail Days," a festival in mid-May that attracts thousands of visitors. From Damascus you can ride (mostly downhill) on a rented bicycle along the Virginia Creeper Trail to Abingdon. On the way out of town on Monday morning, we had breakfast at the still very elegant Martha Washington Inn.

Nancy Arrington, PWWS Chapter

•Patch-dynamic

(Continued from page 6)

determined that the elephant population was 10 percent too high and that if it continued to increase other species would decline! In other words, the question of whether elephants were "natural" was not the issue. What is needed is an overall balance of forces – that is, sustainability – between elephants and their habitat.

The patch-dynamic perspective, which I helped to pioneer in a 1986 book, argues that nature is patchy. In this context, let's think of patches that differ in time since the last disturbance. In any particular landscape, some patches are relatively new, others are relatively old. Now let us invoke the Goldilocks Rule: some species like it hot (or, to stick with our example, disturbed) and some like it cold (undisturbed), and some species are in the middle. The highest diversity comes from a mosaic of patches that differ in age or other factors. Like elephants (and fire), people also create a mosaic. We don't know the origin of grassy balds in the Southern Appalachians (though elk may have been involved there and Native Americans may have helped them along), but we do

know that their recent persistence is due to human disturbance and ongoing human management.

This perspective creates an ethical dilemma: since not all species like the same conditions, what happens at a particular patch is good for some species and bad for others. The real issue, then, is not the "right" or "wrong" on individual patches but whether, on large tracts of land, the conditions for all species are met. In other words, from a biodiversity and conservation point of view, the "right" and "wrong" does not apply strictly to the single patch but rather is the result of the sum of patches at a larger scale.

Is an elephant good or bad? Well, it depends on the number. Not to go too far with "people as elephants," but we can apply the same thinking

to humans. We are a species of nature. We live in an ecosystem that provides clean air and water (if we allow it to). But will we act to create a world that is sustainable around us? The answer depends on the number of people and the degree of impact – the ecological footprint – we create.

This article, by North Carolina Botanical Garden Director Peter White, originally appeared in the March-April 2004 issue of the North Carolina Botanical Garden's bi-monthly newsletter. The garden, part of the University of North Carolina at Chapel Hill, is a center for research, conservation, and interpretation of plants, with special emphasis on plants native to the southeastern United States and horticultural plants having traditional uses or special botanical interest. For information on NCBG or the newsletter, please see www.ncbg.unc.edu or call 919-962-0522.

The gift to be enjoyed by many

Looking for a holiday present that can be enjoyed 12 months of the year? A membership in the Virginia Native Plant Society would be a fine present that can be remembered throughout 2005. VNPS would be happy to send a gift card announcing your gift.

See the address label for your membership expiration date VNPS Membership/Renewal Form

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The deadline for the next issue is January 15.

Announcing the VNPS Wildflowers of Newfoundland trip

Saturday, July 9 - Monday, July 18, 2005

INTRODUCTION:

Newfoundland is perhaps the most scenic, unspoiled area of eastern North America. Habitats visited on this tour will include conifer forest, peatlands, coastal limestone barrens, heath-crowberry barrens, coastal headlands and cliffs, ocean shores, serpentine outcrops, and marshes and pond edges on the western shore of the island. The focus will be on plants – not just the most showy wildflowers, but also trees, shrubs, ferns, grasses, and sedges. A similar tour for the VNPS in 2003 took note of almost 300 species of plants (with over half of them in bloom), including 21 species of orchids (19 in bloom). But birds and mammals will not be ignored, and we will try to learn something about local history.

TOUR LEADERS:

Karl Anderson and Gale Cannon, who led the VNPS tour in 2003,

will guide this group. Karl is an expert field botanist, coauthor of *Plant Communities of New Jersey* (Rutgers, 1993), and former director of the New Jersey Audubon Society's travel program. He has led 19 natural history tours to the Canadian Maritime Provinces, including seven to Newfoundland, of which three were specifically for wildflowers. Gale has been with Karl on all his Newfoundland tours, has a good eye for plants, and is an expert birder.

COST:

The cost of the trip is \$1,200 per person, double occupancy; single supplement will be \$300 (note that single occupancy may not be available at all locations). A deposit of \$250 will hold your place until January 1, when the second payment of \$316 is due. The third payment of \$316 is due March 1. June 1 is when the final payment of \$318 is due. If you choose to pay the full amount at any point by June 1, you may do so.

COST INCLUDES:

Motel accommodations for nine nights, tour leadership, and van transportation in Newfoundland. A donation to VNPS of \$250 is included. (Note: if you plan on driving to Newfoundland, or would prefer to rent a car in Deer Lake on your own, your per-person price will be adjusted). Meals (about \$250 per person) are not included. Air fare roundtrip from Virginia to Deer Lake (between \$600 and \$700 in recent years) is not included.

SEND DEPOSITS AND OTHER PAYMENTS, payable to "VNPS" to Nicky Staunton, 8815 Fort Drive, Manassas, VA 20110. For more information about the trip, e-mail Nicky Staunton at nstaunton@earthlink.net or visit www.vnps.org.

● ● Mark your calendars! VNPS Annual Workshop, Saturday, Feb. 26, Richmond ● ●
Featuring Kathryn Kennedy, president & executive director, Center for Plant Conservation

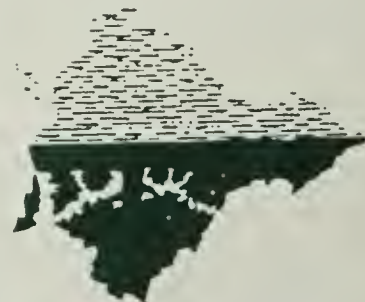
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